XR-C7220/C7300/C7300W

SERVICE MANUAL

US Model
Canadian Model
XR-C7220

E Model
XR-C7300/C7300W

Photo: XR-C7300

For RM-X4S (Remote Commander), please refer to RM-X4S Service Manual (9-925-698-□□) previously issued.

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Model Name Using Similar Mechanism	XR-C5100
Tape Transport Mechanism Type	MG-25G-136

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS (US model)

POWER OUTPUT AND TOTAL HARMONIC DISTORTION
17 watts per channel minimum continuous average power into 4 ohms, 4 channels driven from 20 Hz to 20 kHz with no more than 1 % total harmonic distortion.

Cassette player section

Tape track	4-track 2-channel stereo
Wow and flutter	0.08 % (WRMS)
Frequency response	30 – 18,000 Hz
Signal-to-noise ratio	

Cassette type	Dolby B NR	Dolby NR off
TYPE II, IV	67 dB	61 dB
TYPE I	64 dB	58 dB

Tuner section

FM

Tuning range	
XR-C7220:	87.5 – 107.9 MHz
XR-C7300/C7300W:	FM tuning interval: 50 kHz/200 kHz switchable 87.5 – 108.0 MHz (at 50 kHz step) 87.5 – 107.9 MHz (at 200 kHz step)
Aerial terminal	External aerial connector
Intermediate frequency	10.7 MHz
Usable sensitivity	9 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	65 dB (stereo), 68 dB (mono)
Harmonic distortion at 1 kHz	
	0.7 % (stereo), 0.4 % (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz

AM (XR-C7220)

Tuning range	530 – 1,710kHz

MW (XR-C7300/C7300W)

Tuning range	MW tuning interval: 9 kHz/10 kHz switchable 531 – 1,602 kHz (at 9 kHz step) 530 – 1,710 kHz (at 10 kHz step)

SW (XR-C7300/C7300W)

Tuning range	SW tuning interval: SW1: 2,940 – 7,735 kHz SW2: 9,500 – 18,135 kHz (except ofr 10,140 – 11,575 kHz)
Aerial terminal	External aerial connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	30 µV

– Continued on next page –

FM/AM (MW/SW) CASSETTE CAR STEREO

MICROFILM

SONY®

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	40 W × 4 (at 4 ohms)

General

Outputs	Audio outputs (2) Power aerial relay control lead Power amplifier control lead Telephone ATT control lead
Tone controls	Bass ±8 dB at 100 Hz Treble ±8 dB at 10 kHz
Power requirements	12 V DC car battery (negative earth)
Dimensions	Approx. 188 × 58 × 181 mm (w/h/d)
Mounting dimensions	Approx. 182 × 53 × 164 mm (w/h/d)
Mass	Approx. 1.2 kg
Supplied accessories	Rotary commander (1) (XR-C7300/C7300W) Parts for installation and connections (1 set) Front panel case (1)

Design and specifications are subject to change without notice.

TABLE OF CONTENTS

1. GENERAL
Location of Controls 3
Setting the Clock 3
Installation 4
Connections 6

2. DISASSEMBLY 8

3. ASSEMBLY OF MECHANISM DECK 10

4. MECHANICAL ADJUSTMENTS 13

5. ELECTRICAL ADJUSTMENTS
Test Mode 13
Tape Deck Section 13
Tuner Section 14

6. DIAGRAMS
6-1. Note for Printed Wiring Boards and Schematic Diagrams 17
6-2. Schematic Diagram – MAIN Section (1/3) – 19
6-3. Schematic Diagram – MAIN Section (2/3) – 21
6-4. Schematic Diagram – MAIN Section (3/3) – 23
6-5. Printed Wiring Board – MAIN Board (Component Side) – 25
6-6. Printed Wiring Board – MAIN Board (Conductor Side) – 27
6-7. Printed Wiring Boards – PANEL Section – 29
6-8. Schematic Diagram – PANEL Section – 31
6-9. IC Pin Function Description 35

7. EXPLODED VIEWS 39

8. ELECTRICAL PARTS LIST 42

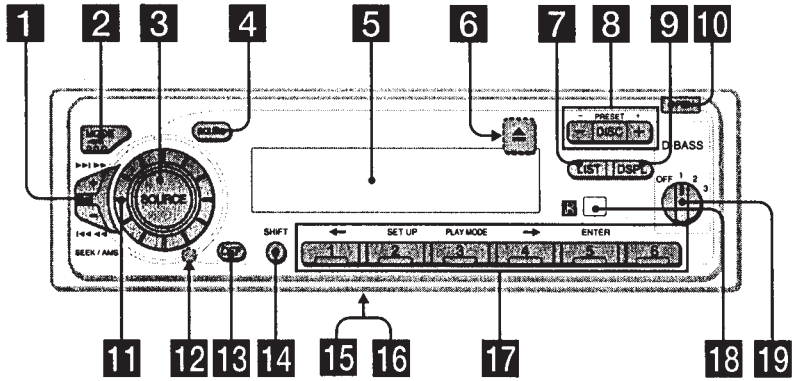
Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Location of controls



Refer to the pages listed for details.

1 **SEEK/AMS (seek/Automatic Music Sensor/manual search) control 7, 9, 16, 19**

2 **MODE (◀II▶) button**

During tape playback: Playback direction change 7

During radio reception: BAND select 8, 9

During CD or MD playback: CD/MD Unit select 15, 18

3 **SOURCE (TAPE/TUNER/CD/MD) button 7, 8, 9, 15, 18**

4 **SOUND button 13**

5 **Display window**

6 **⏏ (eject) button (located on the front side of the unit behind the front panel) 7**

7 **LIST button**

Station Memo **10, 11**
List-up **11**
Disc Memo **17, 18**

8 **PRESET/DISC button**

During radio reception: Preset stations select 9

During CD/MD playback: Disc change 16

9 **DSPL (display mode change) button 7, 10, 11, 15, 17, 18**

10 **OPEN (front panel release) button 5, 7, 21**

11 **Dial (volume/bass/treble/left-right/ rear-front control) 6, 10, 11, 13, 17, 18**

12 **Reset button (located on the front side of the unit behind the front panel) 5**

13 **OFF button 5, 7**

14 **SHIFT button**

PLAY MODE **8, 9, 16, 19**
SET UP **6, 14, 15**

15 **POWER SELECT switch (located on the bottom of the unit)**
See "POWER SELECT switch" in the Installation/Connections manual.

16 **Frequency select switch (located on the bottom of the unit) (XR-C7300/C7300W)**
See "Frequency select switch" in the Installation/Connections manual.

17 **Number buttons 9, 18**

18 **Sensor for the optional wireless remote**

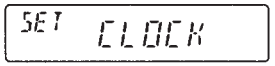
19 **D-BASS control 14**

Setting the clock

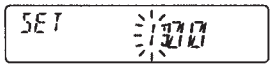
The clock uses a 12-hour digital indication.

Example: To set the clock to 10:08

1 **Press (SHIFT), then press ② (SET UP) repeatedly until "CLOCK" appears.**

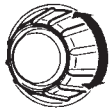


❶ Press ④ (→).



The hour indication flashes.

❷ Set the hour.



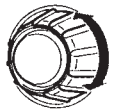
to go backward

to go forward

❸ Press ④ (→).

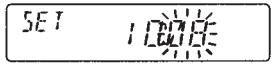
The minute indication flashes.

❹ Set the minute.



to go backward

to go forward



2 **Press (SHIFT).**

The clock starts.

3 **Press (SHIFT).**
After the clock setting is complete, the display returns to normal playback mode.

Note
If the POWER SELECT switch on the bottom of the unit is set to the ⓑ position, turn the power on first, then set the clock.

This section is extracted from instruction manual.

Installation

Precautions

- Do not tamper with the four holes on the upper surface of the unit. They are for tuner adjustments to be done only by service technicians.
- If you mount other Sony equipment with this unit, it is better to mount this unit in the lower position.
- There must be a distance of at least 15 cm between the cassette slot of the unit and shift lever in order to insert a cassette easily. Choose the installation location carefully so the unit does not interfere with gear shifting and other driving operations.
- Choose the installation location carefully so that the unit will not interfere with normal driving.
- Avoid installing the unit in areas subject to dust, dirt, excessive vibration, or high temperatures, such as in direct sunlight or near heater ducts.
- Use only the supplied mounting hardware for a safe and secure installation.

Mounting angle adjustment

Adjust the mounting angle to less than 20°.

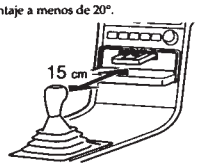
Instalación

Precauciones

- No toque los cuatro orificios de la superficie superior de la unidad. Estos orificios son para ajustes del sintonizador que solamente deberán realizar técnicos de reparación.
- Si monta otro equipo Sony con esta unidad, es preferible montar esta unidad en la posición más baja.
- Para que sea posible insertar cassettes con facilidad, debe haber una distancia de al menos 15 cm entre la ranura de inserción de cassettes de la unidad y la palanca de cambios. Elija cuidadosamente el lugar de instalación de forma que la unidad no entorpezca las operaciones de cambio de marchas o de conducción en general.
- Elija cuidadosamente el lugar de montaje de forma que la unidad no interfiera las funciones normales de conducción.
- Evite instalar la unidad donde pueda quedar sometida a altas temperaturas, como a la luz solar directa o al aire caliente de calefacción, o a polvo, suciedad, o vibraciones excesivas.
- Para realizar una instalación segura y firme, utilice solamente la ferretería de montaje suministrada.

Ajuste del ángulo de montaje

Ajuste el ángulo de montaje a menos de 20°.



安裝

使用前注意事項

- 本機頂部的 4 個小孔請勿擅自觸動，它們僅供維修技術人員調整調諧器之用。
- 本機如果另外安裝有其他 Sony 牌設備時，最好把本機裝在較低位置。
- 在本機的卡帶槽口和變速桿之間，至少需保持 15 cm 距離以便於裝插卡帶。請留心選擇安裝位置以便使機器不至於妨礙您排檔和其他駕車操作。
- 本機請放在不妨礙司機駕駛之處。
- 避免將本機放在高溫之處，如陽光直接照射、暖氣機前、或灰塵極多、髒亂，以及極易受震動等地方。
- 為了安全起見，安裝時請使用附送的部件。

安裝角度之調整

請在 20 度以內調整安裝角度。

How to detach and attach the front panel

Before installing the unit, detach the front panel.

A To detach

Before detaching the front panel, be sure to press (OFF). Press (OPEN), then slide the front panel to the right side, and pull out the left side.

B To attach

Attach part ⓐ of the front panel to part ⓑ of the unit as illustrated and push the left side into position until it clicks.

Forma de extraer e instalar el panel frontal

Antes de instalar la unidad, extraiga el panel frontal.

A Para extraerlo

Antes de extraer el panel frontal, ceriórese de presionar (OFF). Después presione (OPEN) a fin de abrirlo, después deslícelo hacia la derecha, y por último tire de su parte izquierda.

B Para instalarlo

Coloque el orificio ⓐ del panel frontal en el eje ⓑ de la unidad, como se muestra en la ilustración, y después presione la parte izquierda.

如何拆卸和裝配前板

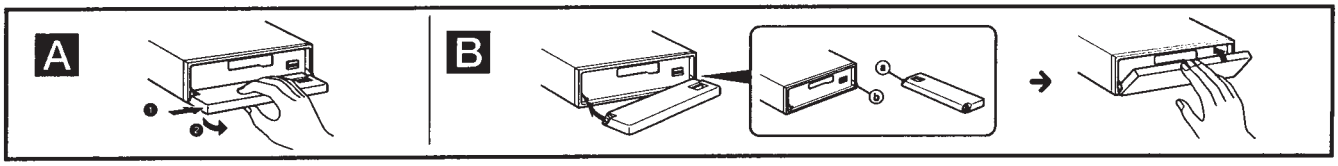
安裝本機之前，請先拆卸前板。

A 拆卸

拆卸前面板之前，須先按下 (OFF) 鍵。按下 (OPEN) 鍵，然後將前面板向右邊滑動面拉出其左邊。

B 裝配

如圖所示，將前板的 ⓐ 孔對準本機的支軸 ⓑ，然後將左側推入聽到喀噠聲。



Mounting example

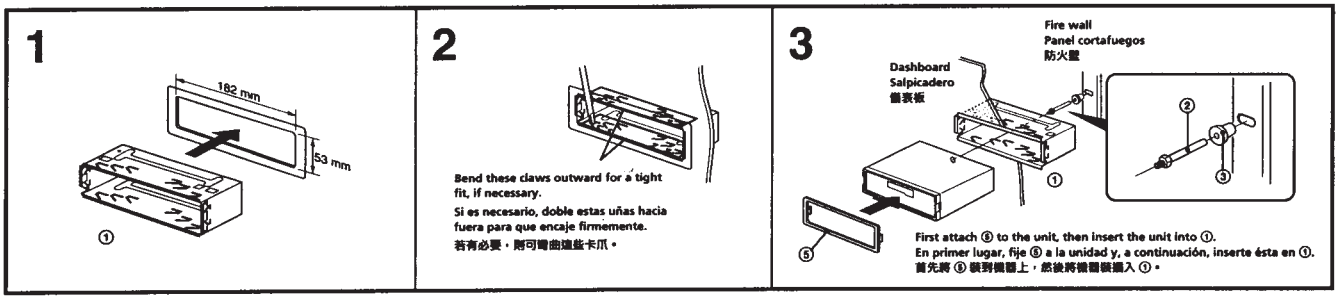
Installation in the dashboard

Ejemplo de montaje

Instalación en el salpicadero

安裝示例

在儀表板中安裝



Mounting the unit in a Japanese car

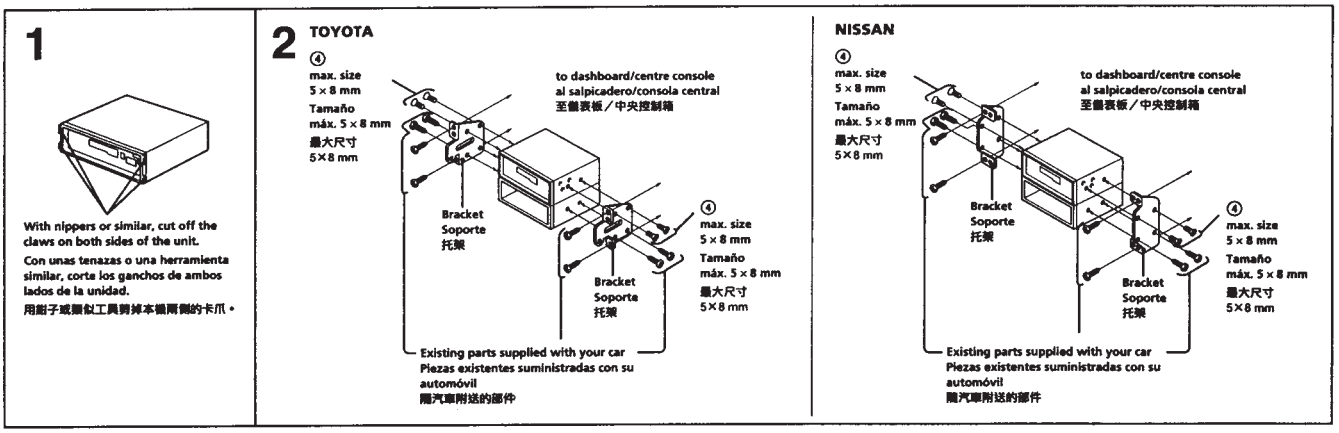
You may not be able to install this unit in some makes of Japanese cars. In such a case, consult your Sony dealer.

Montaje de la unidad en un automóvil japonés

Usted no podrá instalar esta unidad en algunos automóviles japoneses. En tal caso, consulte a su proveedor Sony.

將本機安裝於日本產汽車上時

有的日本產汽車不能安裝本機，在這種情形下，請您向當地的 Sony 經銷商諮詢。



Note
To prevent malfunction, install only with the supplied screws ④.

Nota
Para evitar que se produzcan fallos, realice la instalación solamente con los tornillos suministrados ④.

註
為防止發生故障，安裝時只能使用附送的螺絲 ④。

Installing the rotary commander

Notes
- *Choose the mounting location carefully so that the rotary commander will not interfere with operating the car.*
- *Do not install the rotary commander in a place where it may jeopardize the safety of the (front) passenger in any way.*
- *When installing the rotary commander, be sure not to damage any electrical cables etc. on the other side of the mounting surface.*
- *Avoid installing the rotary commander where it may be subject to high temperatures, such as from direct sunlight or hot air from the heater etc.*

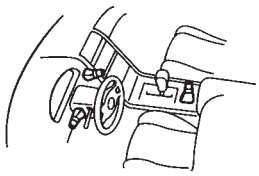
Instalación del mando rotativo

Notas
- *Elija cuidadosamente el lugar de montaje de forma que el mando rotativo no dificulte la conducción del coche.*
- *No instale el mando rotativo en un lugar donde pueda poner en peligro la seguridad del pasajero acompañante.*
- *Al instalar el mando rotativo, asegúrese de no dañar los cables de electricidad, etc., del otro lado de la superficie de montaje.*
- *Procure no instalar el mando rotativo en un lugar expuesto a altas temperaturas, como a la luz solar directa o al aire caliente de la calefacción, etc.*

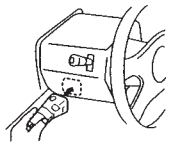
安裝旋轉式控制器

註
- *旋轉式控制器請裝在不妨礙汽車駕駛之處。*
- *不可把旋轉式控制器裝在對乘客有危險的地方。*
- *安裝遙控器時，請注意不要讓螺絲釘傷及安裝面反面的電線等。*
- *避免把遙控器安裝在高溫，如直射陽光下或受暖氣機熱流吹襲的地方。*

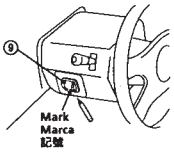
Example of a mounting location
Ejemplo de un lugar de montaje
安裝例子



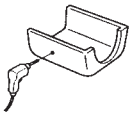
1 **Choose the exact location for mounting the rotary commander, then clean the mounting surface.**
Dirt and oil impair the adhesive strength of the double-sided adhesive tape.
Una vez elegido el lugar de montaje del mando rotativo, limpie previamente la superficie de montaje.
La suciedad o la grasa dañan la intensidad adhesiva de la cinta adhesiva de dos caras.
選擇一個適合安裝旋轉式控制器的地方，然後清潔安裝面。
表面航髒或有油污會減低兩面膠帶的黏貼力。



2 **Mark the position for the supplied screw.**
Use the screw holes on the mounting hardware ⑨ to mark the position.
Marque la posición para el tornillo suministrado.
Para ello, utilice los orificios para tornillos de la ferretería de montaje ⑨.
畫 1 個供螺絲釘鑽孔處記號。
按照安裝零件 ⑨ 的螺絲釘孔位置作記號。



3 **Remove the steering wheel column cover, and drill 2 mm diameter hole at the marked position.**
Extraiga la cubierta de la columnа de la dirección y haga un orificio de 2 mm. de diámetro en el lugar marcado.
取下轉向柱外殼，並在所作記號之處鑽開 2 mm 大小的釘孔。



4 **Warm the mounting surface and the double-sided adhesive tape on the mounting hardware ⑨ to a temperature of 20°C to 30°C, and attach the mounting hardware to the mounting surface applying even pressure. Use the supplied screw ⑧ to set into secure position.**
Attach a piece of heavy duty tape etc. on the other side of the mounting surface to cover the protruding tips of the screws so they will not interfere with any electrical cables etc. inside the steering wheel column.

Caliente la superficie de montaje y la cinta adhesiva de doble cara de la ferretería de montaje ⑨ a una temperatura entre 20°C y 30°C, y ajuste la ferretería de montaje a la superficie de montaje ejerciendo una presión uniforme. A continuación, apriete el tornillo ⑧ suministrado.
Adhiera un trozo de cinta adhesiva resistente, etc., en el otro lado de la superficie de montaje para cubrir los extremos de los tornillos que sobresalgan, de forma que no interfieran con los cables de electricidad, etc., del interior de la columna de dirección.

把安裝面及安裝零件 ⑨ 的兩面膠帶加熱至 20° 到 30° 程度，然後把安裝零件貼在轉向柱外殼，貼時所施加壓力須均等。用附帶的螺絲釘 ⑧ 把安裝零件釘緊。
在安裝面的反面之螺絲釘尖端部分，貼張強韌的膠帶等，以免損傷轉向柱裡面的電線等。

Cut the mounting hardware ⑨, If necessary.
Si es necesario, corte la pieza ⑨.
必要時，可截切安裝五金 ⑨。

Heavy duty tape etc.
Cinta adhesiva resistente, etc.
強韌的膠帶等

5 **After reinstalling the steering wheel column cover, attach the rotary commander to the mounting hardware by aligning the four holes on the bottom of the rotary commander with the four catches on the mounting hardware and sliding the rotary commander until it locks into place as illustrated.**

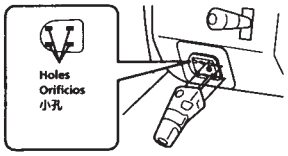
Note
If you are mounting the rotary commander on the steering wheel column, make sure that the protruding tips of the screws on the inner surface of the column do not in any way hinder or interfere with the movement of the rotating shaft, operative parts of the switches or the electrical cables etc. inside the column.

Una vez instalada la cubierta de la columna de dirección, fije el mando rotativo a la ferretería de montaje alineando los cuatro orificios de la parte inferior del mando con los cuatro enganches de la ferretería de montaje. A continuación, deslice el mando hasta que encaje en su sitio como se muestra en la ilustración.

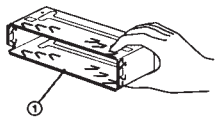
Nota
Si monta el mando rotativo en la columna de dirección, asegúrese de que los extremos de los tornillos que sobresalgan de la superficie interior de la columna no dificulten el movimiento del eje de rotación ni los componentes operativos de los conmutadores o los cables de electricidad, etc., del interior de la columna.

在轉向柱外殼重新裝上以後，把遙控器裝在安裝零件裡。裝時調把遙控器底部的 4 個小孔對準安裝零件的 4 個小鉤，然後按照插圖所示，把遙控器插入零件裡。

註
在把遙控器裝在轉向柱外殼時，必須注意轉向柱裡的螺絲釘之尖端，不可刺到或損傷轉向柱設裡面的轉軸、開關的操作部分或電線等。

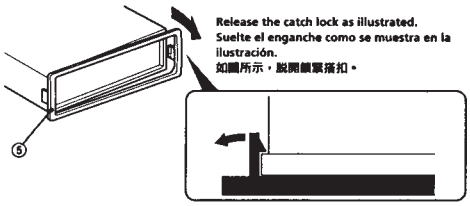


Cautions
- Cautionary notice for handling the bracket ①. Handle the bracket carefully to avoid injuring your fingers.
- Remove the protection collar ⑤ before installing.



Precauciones
- Advertencia sobre la manipulación del soporte ①. Tenga mucho cuidado al manipular el soporte para evitar posibles lesiones en los dedos.
- Retire el collar de protección ⑤ antes de realizar la instalación.

注意
- 移動裝卸支架 ① 時，請特別注意別傷到手指。
- 安裝前，先將保護墊圈 ⑤ 取出。



Release the catch lock as illustrated.
Suelte el enganche como se muestra en la ilustración.
如圖所示，脫開鎖緊搭扣。

Connections

Cautions

- This unit is designed for negative earth 12 V DC operation only.
- Be careful not to pinch any wires between a screw and the body of the car or this unit or between any moving parts such as the seat railing, etc.
- Before making connections, disconnect the earth terminal of the car battery to avoid short circuits.
- Connect the **yellow** and **red** power input leads only after all other leads have been connected.
- Be sure to connect the red power input lead to the positive 12 V power terminal which is energized when the ignition key is in the accessory position.
- **Run all earth wires to a common earth point.**
- Connect the yellow cord to a free car circuit rated higher than the unit's fuse rating. If you connect this unit in series with other stereo components, the car circuit they are connected to must be rated higher than the sum of the individual component's fuse rating. If there are no car circuits rated as high as the unit's fuse rating, connect the unit directly to the battery. If no car circuits are available for connecting this unit, connect the unit to a car circuit rated higher than the unit's fuse rating in such a way that if the unit blows its fuse, no other circuits will be cut off.

If your car has no accessory position on the ignition key switch — POWER SELECT switch

The front panel illumination is factory-set to be turned on even when the unit is not being played. However, this setting may cause some car battery to wear if **your car has no accessory position on the ignition key switch**. To avoid this battery wear, **set the POWER SELECT switch located on the bottom of the unit to the ⓑ position, then press the reset button**. The illumination is reset to stay off while the unit is not being played.

Notes

- *The caution alarm for the front panel is not activated when the POWER SELECT switch is set to the ⓑ position.*
- *Do not use excessive force when changing the POWER SELECT switch.*

Frequency select switch

The MW (FM) tuning interval is factory-set to the 9K (50 K) position. If the frequency allocation system of your country is based on 10 kHz (200 kHz) interval, set the switch on the bottom of the unit to the 10 K (200 K) position before making connections.

Reset button

When the installation and connections are complete, be sure to press the reset button with a ballpoint pen etc.

Conexiones

Precauciones

- Esta unidad ha sido diseñada para alimentarse con 12 V CC, negativo a masa, solamente.
- Tenga cuidado de no atrapar ningún cable entre algún tornillo y la carrocería del automóvil o esta unidad o entre las partes móviles, como por ejemplo los raíles del asiento, etc.
- Antes de realizar las conexiones, desconecte el terminal de puesta a masa de la batería del automóvil a fin de evitar cortocircuitos.
- Conecte los cables de entrada de alimentación **amarillo** y **rojo** solamente después de haber conectado los demás.
- Cerciórese de conectar el cable de entrada de alimentación rojo a un terminal de 12 V positivo que se energice al poner la llave de encendido en la posición para accesorios.
- **Conecte todos los conductores de puesta a masa a un punto común.**
- Conecte el cable amarillo a un circuito libre del automóvil que tenga una capacidad superior a la del fusible de la unidad. Si conecta esta unidad en serie con otros componentes estereofónicos, el circuito del automóvil al que se encuentran conectados debe tener una capacidad superior a la de la suma de las capacidades de los fusibles de cada componente. Si ningún circuito del automóvil tiene una capacidad tan alta como la del fusible de la unidad, conecte ésta directamente a la batería. Si el automóvil no dispone de ningún circuito para conectar esta unidad, conéctela a un circuito del automóvil con capacidad superior a la del fusible de la unidad, de forma que si se funde el fusible de ésta, no se interrumpa ningún otro circuito.

Si el automóvil no dispone de posición para accesorios en la llave de encendido

— Selector POWER SELECT

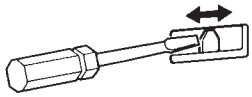
La iluminación del panel frontal ha sido ajustada en fábrica para que esté activada aunque la unidad no se encuentre en reproducción. Sin embargo, este ajuste puede provocar cierta descarga de la batería del automóvil **si éste no dispone de posición para accesorios en la llave de encendido**. Para evitar esto, **ponga el selector POWER SELECT, situado en la base de la unidad, en la posición ⓑ y, después, pulse el botón de restauración.** La iluminación estará desactivada cuando la unidad no se encuentre en reproducción.

Notas

- *La alarma de precaución para el panel frontal no se activará si el selector POWER SELECT está ajustado en la posición ⓑ.*
- *No emplee excesiva fuerza al cambiar el selector POWER SELECT.*

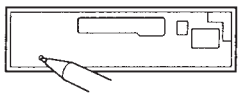
Selector de frecuencia

El intervalo de sintonía de MW (FM) ha sido ajustado en fábrica a la posición 9 K (50 K). Si el sistema de asignación de frecuencias de su país se basa en el intervalo de 10 kHz (200 kHz), ponga este selector, situado en la base de la unidad, en la posición 10 K (200 K) antes de realizar las conexiones.



Botón de restauración

Cuando finalice la instalación y las conexiones, cerciórese de pulsar el botón de restauración con un bolígrafo, etc.



線路連接

注意

- 本機只能使用負極接地 12 V DC 直流電源。
- 小心別使任何導線夾緊在螺栓和車身或本機間，也不夾緊在任何活動部件諸如座椅扶手間等。
- 連接前，先拔去汽車電池的接地端子，以免發生短路。
- **黃色**和**紅色**電源輸入導線必須在所有其它導線都連接完畢以後才連接。
- 紅色電源導線務請連接至 12 V 電源端子，該電源端子在汽車發動機點火鑰匙處於輔助位置時才通電。
- **將所有地線都連接到同一地點。**
- 將黃色導線連接到大於本機保險絲額定容量的未佔用的汽車電路上。若將本機和其它立體聲裝置相互串聯，所連接的汽車電路容量必須大於各組成機保險絲容額的總和。若沒有與本機保險絲額定容量一樣大的汽車電路可資利用，可將本機直接連接到電池上。若無適當的汽車電路可用於連接本機，請將本機連接到大於本機保險絲容量的汽車電路上。這樣，若本機的保險絲燒斷了，也不致於切斷其它電路。

若您的汽車在點火鑰匙上沒有輔助位置

— POWER SELECT 開關

前板的照明燈是出廠前設置的，即使不使用本機時也會發亮。**若要在汽車發動機點火鑰匙沒具輔助位置的汽車裡使用本機，**此照明燈將會一直消耗微量的電池電力。因此，為了避免在這種狀態下的電池消耗，**請將本機底部的 POWER SELECT 開關設定在 ⓑ 檔處，然後按下前板的復位鍵。**這樣，不使用本機時，照明燈便不發亮。

註

- *POWER SELECT 開關被設定在 ⓑ 檔時，前板的操作錯誤警告功能便失效。*
- *變換 POWER SELECT 開關時，切勿用力過大。*

頻率選擇開關

MW (FM) 調諧間隔在出廠前被設定在 9 K (50 K) 位置上。若貴國的頻率分配系統是以 10 kHz (200 kHz) 間隔為基礎的，連接前，請將本機底部上的開關設定在 10 K (200 K) 位置上。

復位鍵

當安裝和連接完成後，務請用圓珠筆等按壓復位鍵。

Connection diagram

Equipment used in illustrations (not supplied)

Front speaker
Altavoz delantero
前揚聲器

Rear speaker
Altavoz trasero
後揚聲器

For connecting two or more changers, the source selector XA-C30 (optional) is necessary.

Diagramas de conexión

Equipo utilizado en las ilustraciones (no suministrado)

Power amplifier
Amplificador de potencia
功率放大器

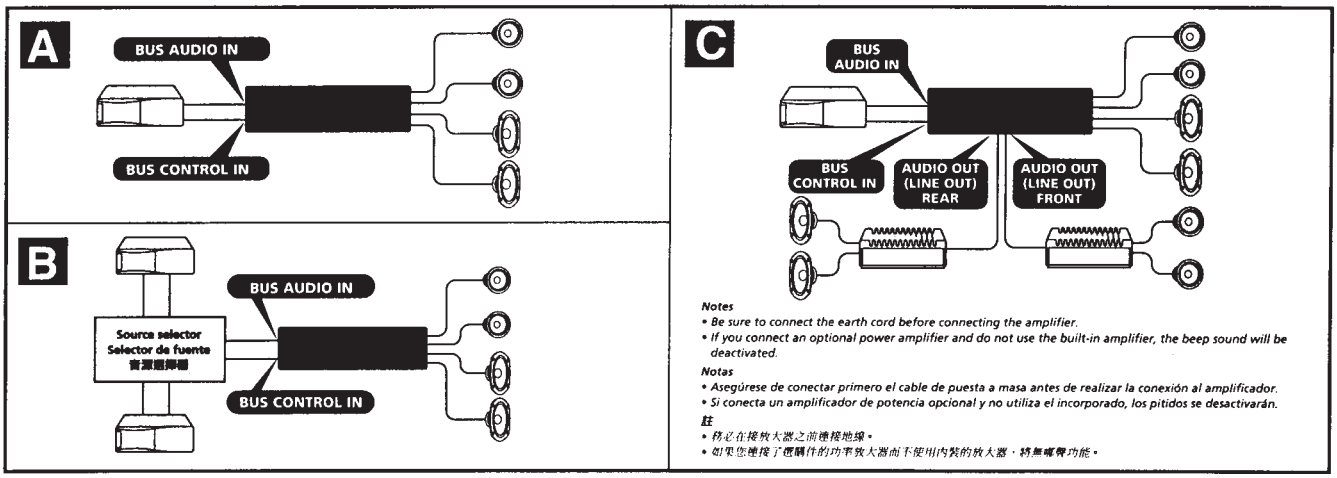
Cuando desee conectar dos o más cambiadores, necesitará un selector de fuente XA-C30 (opcional).

線路連接圖

插圖中的裝置（無附帶）

CD/MD changer
Cambiador de CD/MD
CD/MD 換碟機

若要連接 2 臺或 2 臺以上換碟機時，必須使用音源選擇器 XA-C30（選購件）。



Notes

- *Be sure to connect the earth cord before connecting the amplifier.*
- *If you connect an optional power amplifier and do not use the built-in amplifier, the beep sound will be deactivated.*

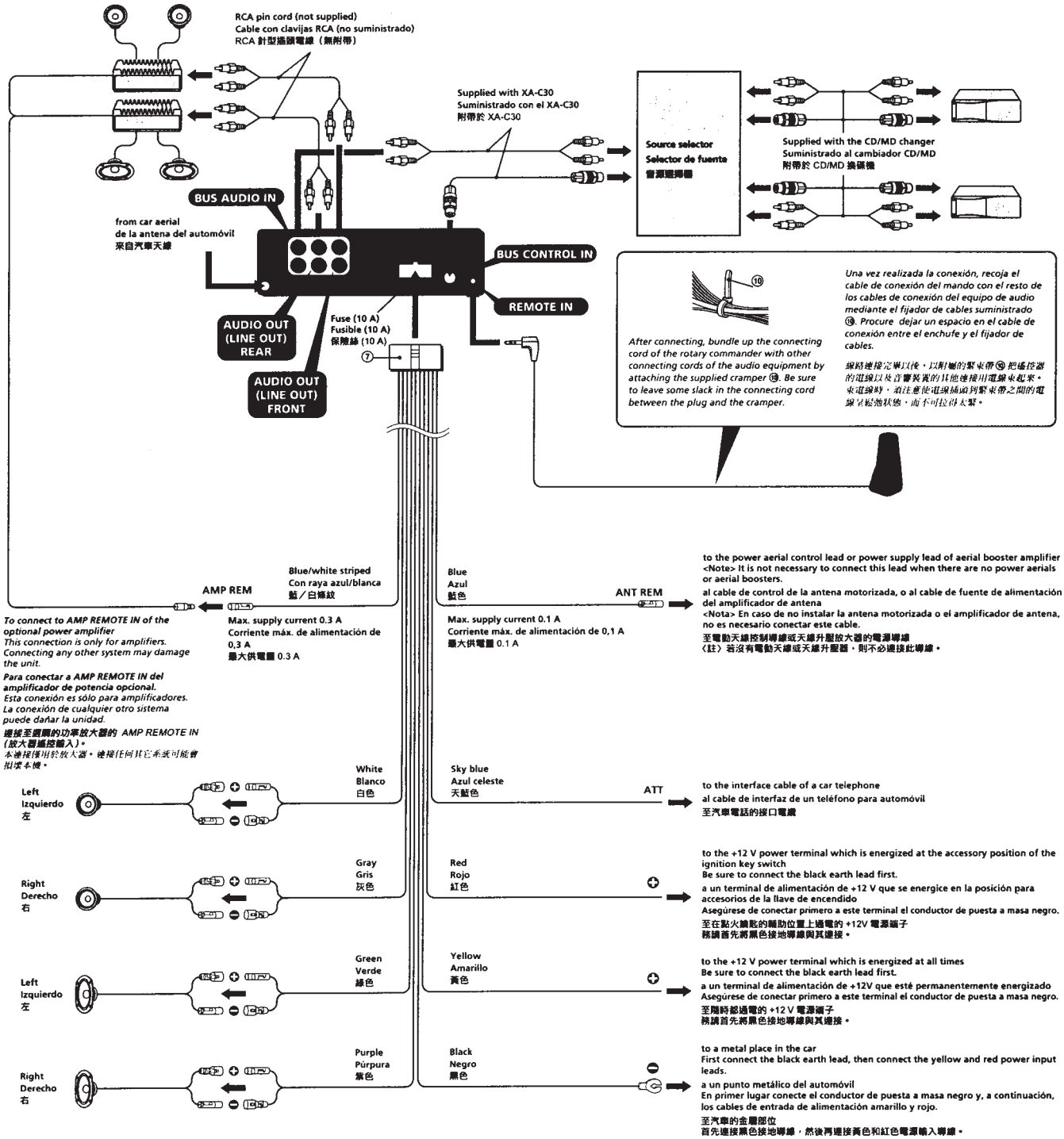
Notas

- *Asegúrese de conectar primero el cable de puesta a masa antes de realizar la conexión al amplificador.*
- *Si conecta un amplificador de potencia opcional y no utiliza el incorporado, los pitidos se desactivarán.*

註

- *務必在接放大器之前連接地線。*
- *如果您連接了選購件的功率放大器而不使用內裝的放大器，將無嘟聲功能。*

Connection example
Ejemplo de conexiones
線路連接圖例



Notes on the control leads
- *The power aerial control lead (blue) supplies +12 V DC when you turn on the tuner or when you activate the ATA (Automatic Tuner Activation) function.*
- *A power aerial without a relay box cannot be used with this unit.*

Memory hold connection
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition key is turned off.

Notes on speaker connection
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities. Otherwise, the speakers may be damaged.*
- *Do not connect the terminals of the speaker system to the car chassis, and do not connect the terminals of the right speaker with those of the left speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Do not connect any active speakers (with built-in amplifiers) to the speaker terminals of the unit. Doing so may damage the active speakers. Be sure to connect passive speakers to these terminals.*

Notas sobre conductores de control
- *El conductor de control (azul) de la antena motorizada suministra + 12 V CC al activar el sintonizador o la función ATA (activación automática del sintonizador).*
- *Con esta unidad no podrá utilizarse una antena motorizada sin caja de relés.*

Conexión para protección de la memoria
Si conecta el cable de entrada de alimentación amarillo, el circuito de la memoria siempre recibirá alimentación, aunque ponga la llave de encendido en la posición de apagado.

Notas sobre la conexión de los altavoces
- *Antes de conectar los altavoces, desconecte la alimentación de la unidad.*
- *Utilice altavoces con una impedancia de 4 a 8 ohmios, y con la potencia admisible adecuada, ya que de lo contrario podría dañarlos.*
- *No conecte los terminales del sistema de altavoces al chasis del automóvil, ni los del altavoz derecho a los del izquierdo.*
- *No intente conectar los altavoces en paralelo.*
- *No conecte altavoces activos (con amplificadores incorporados) a los terminales de altavoces de la unidad. Si lo hiciese, podría dañar tales altavoces. Por lo tanto, cerciórese de conectar altavoces pasivos a estos terminales.*

關於控制導線的注意事項
- *接通調諧器或激活 ATA（自動調諧器激活）功能時，電動天線控制導線（藍色）便能提供 +12 V 直流電。*
- *本機不能使用不具備繼電箱的電動天線。*

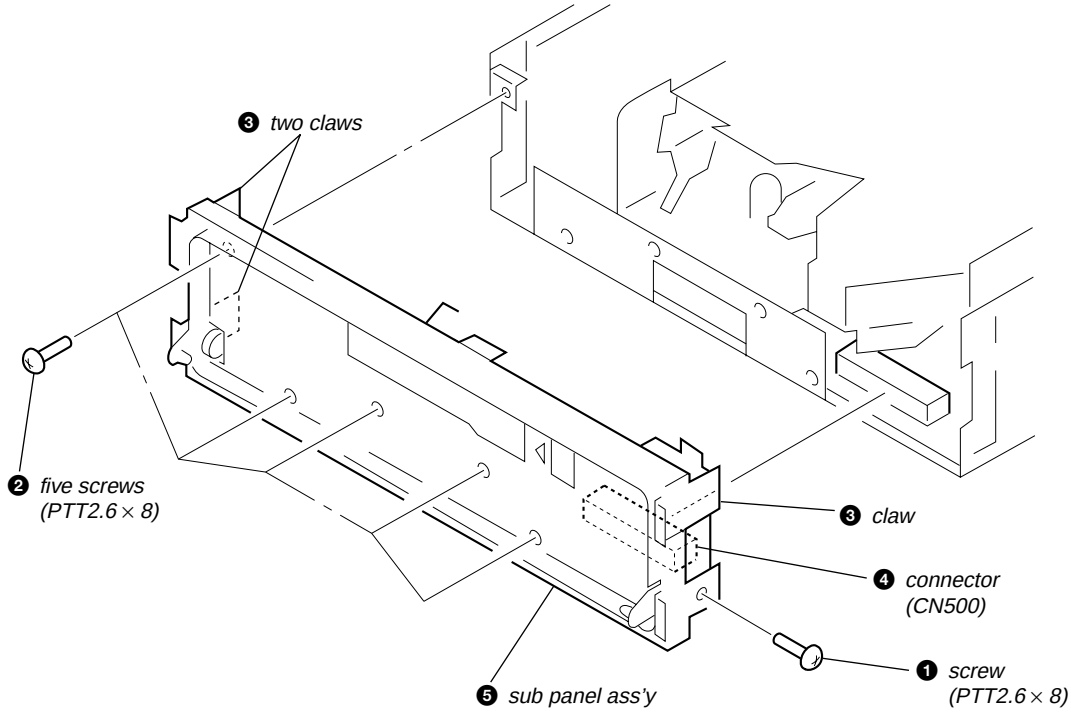
保持記憶功能的連接法
當連接好黃色電源輸入導線時，即使汽車發動機點火鑰匙被轉在電源切斷之處，電源仍繼續將電流供給記憶功能用電路，以保持所記憶著的數據。

連接揚聲器時的注意事項
- *連接揚聲器電線之前，請先切斷本機電源。*
- *請使用 4 至 8 Ω 阻抗並且具有足夠功率的揚聲器。否則會損壞揚聲器。*
- *不可將揚聲器的端子連接至汽車底盤，也不可將左揚聲器和右揚聲器相連接。*
- *揚聲器不可平行連接。*
- *不可連接有源揚聲器（內裝有放大器者）至本機的揚聲器端子。否則會損壞有源揚聲器。因此，這些端子只能連接無源揚聲器。*

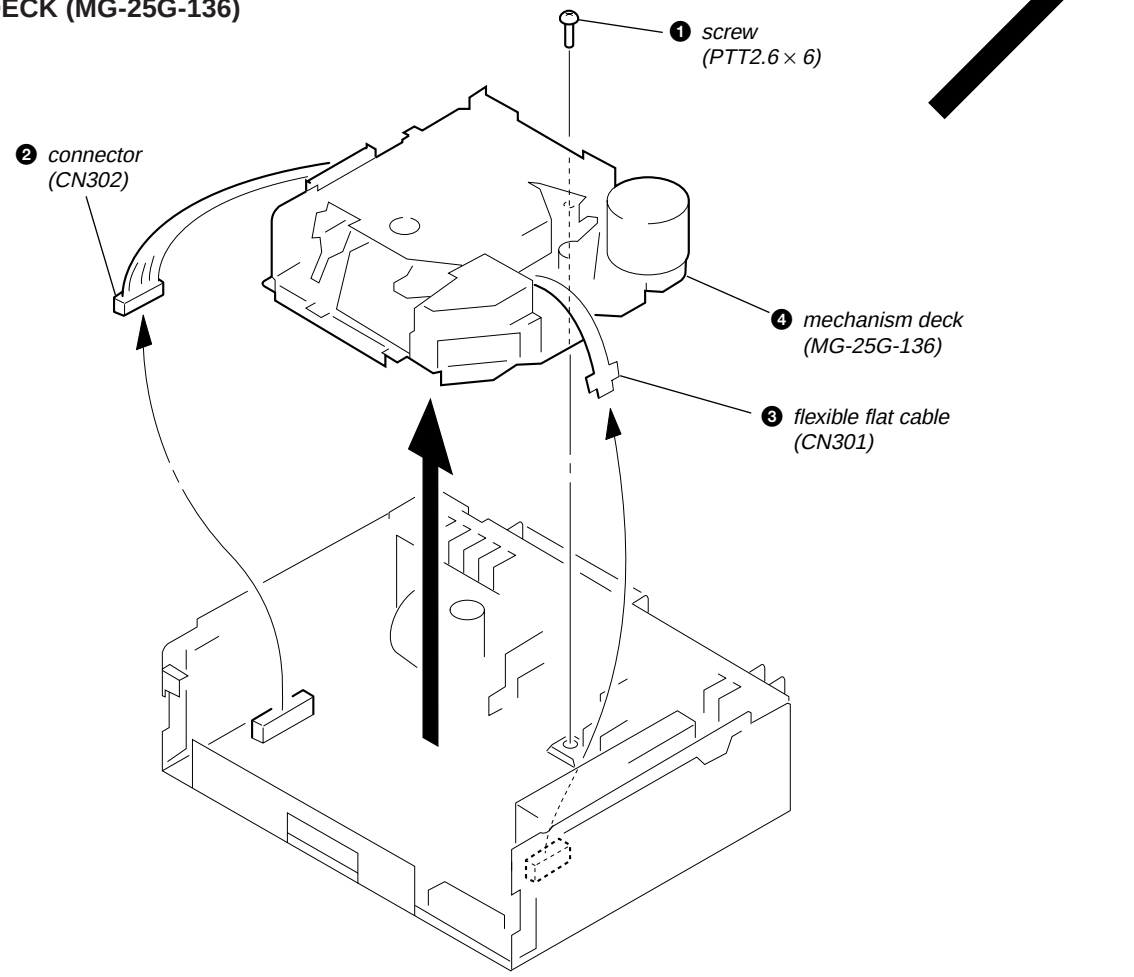
SECTION 2
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

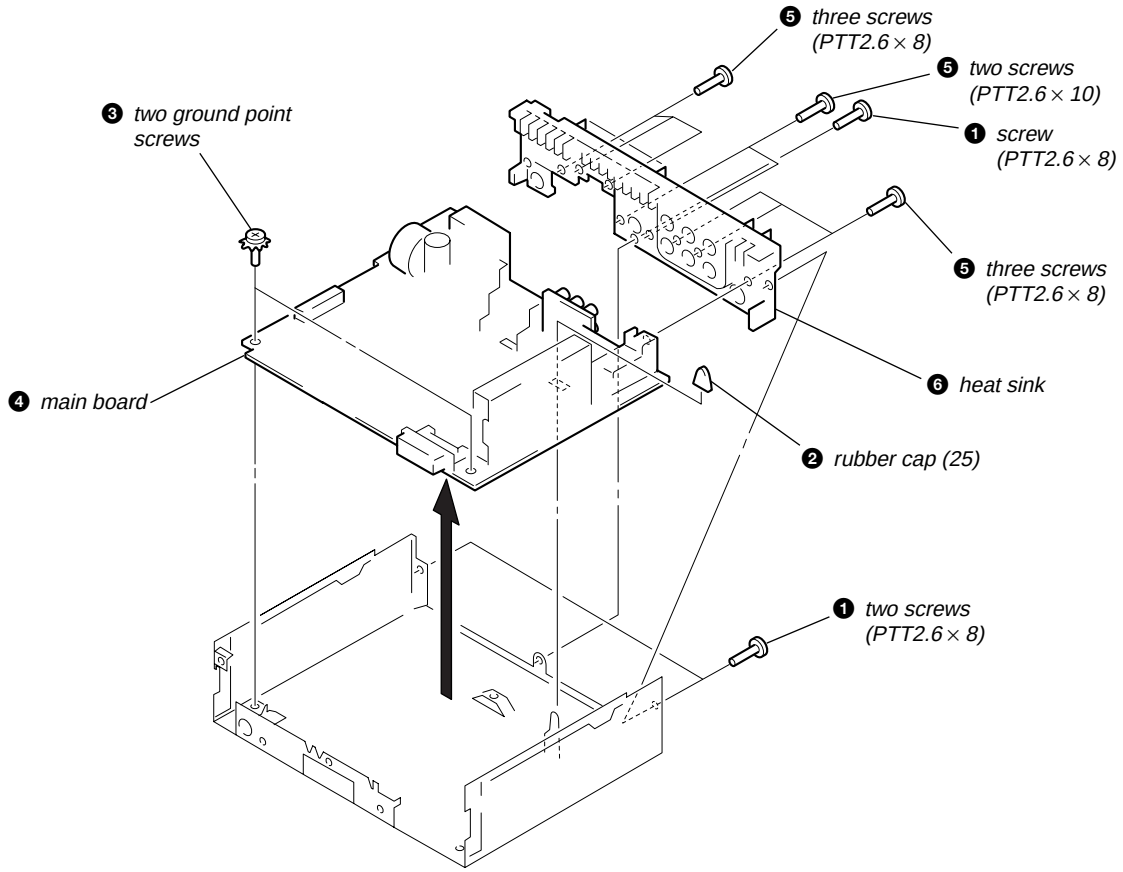
SUB PANEL ASS'Y



MECHANISM DECK (MG-25G-136)



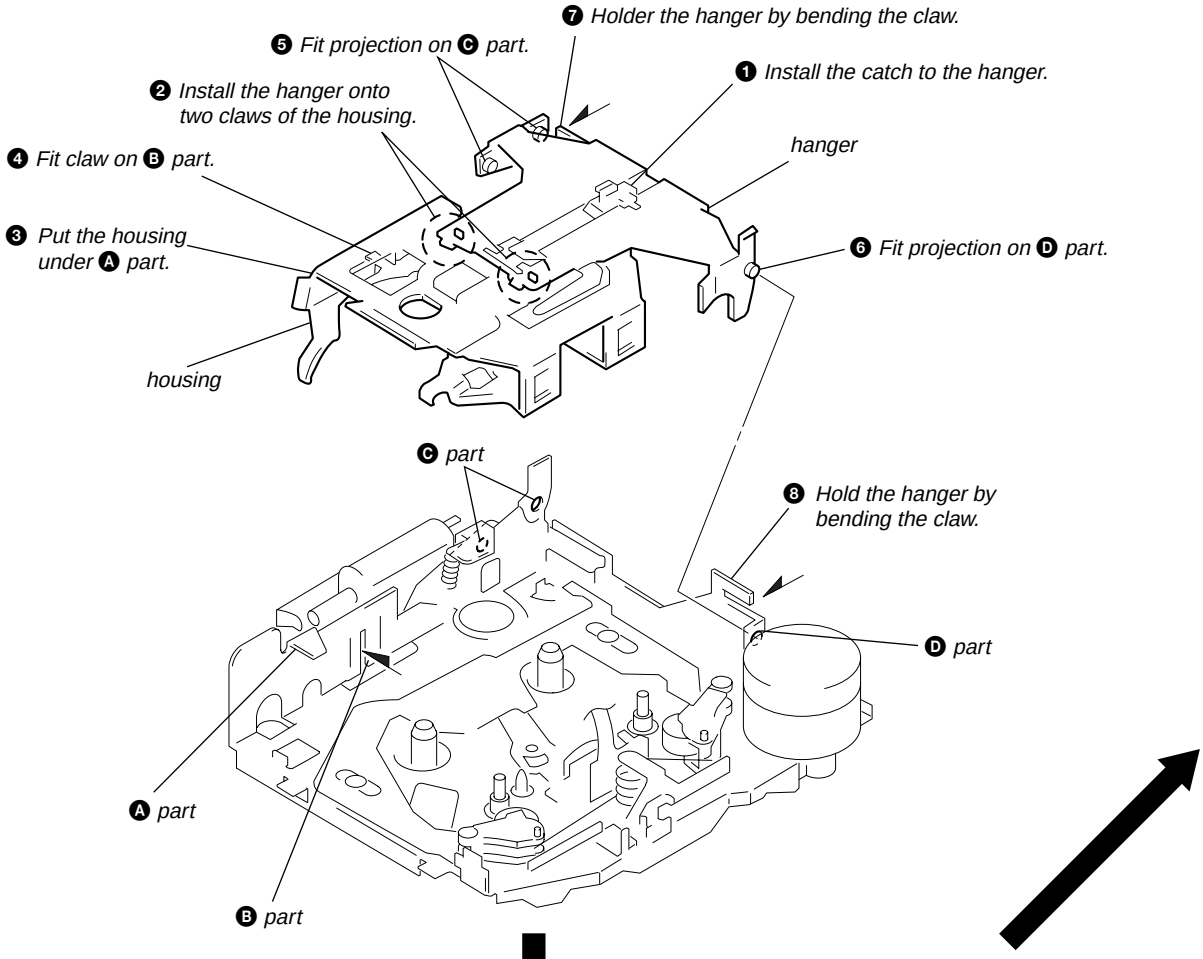
MAIN BOARD, HEAT SINK



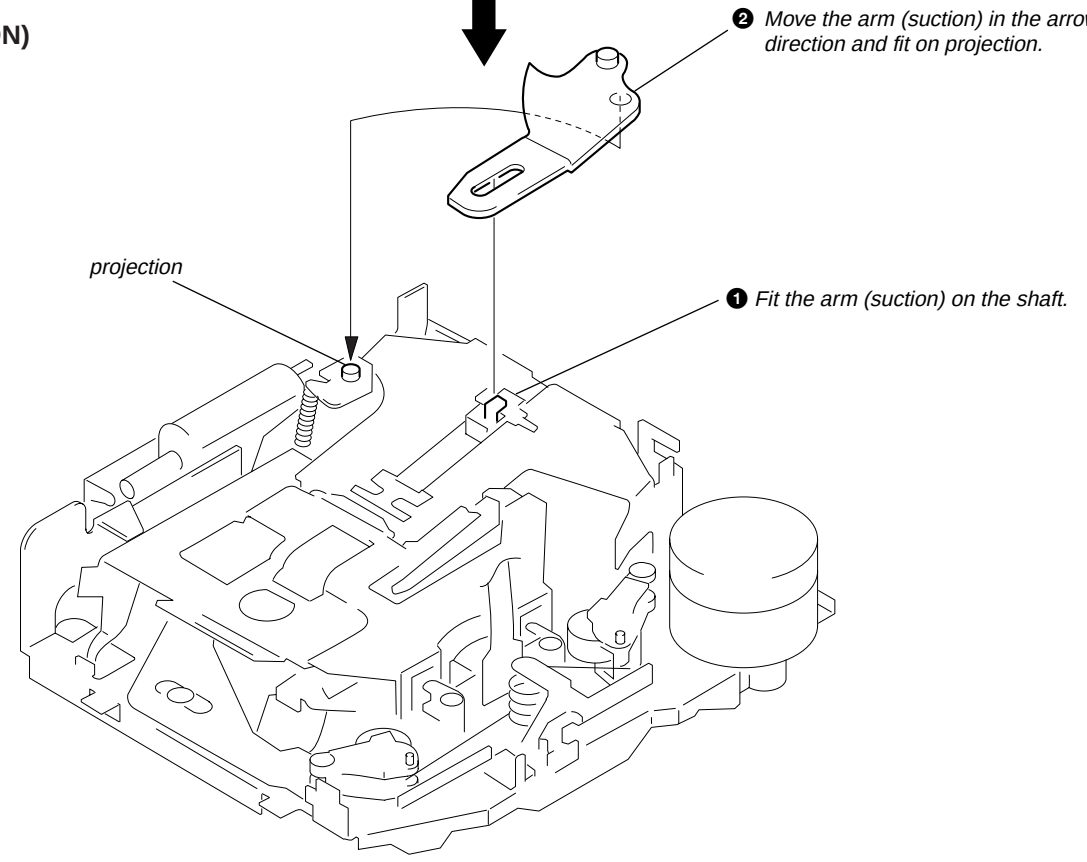
SECTION 3
ASSEMBLY OF MECHANISM DECK

Note: Follow the assembly procedure in the numerical order given.

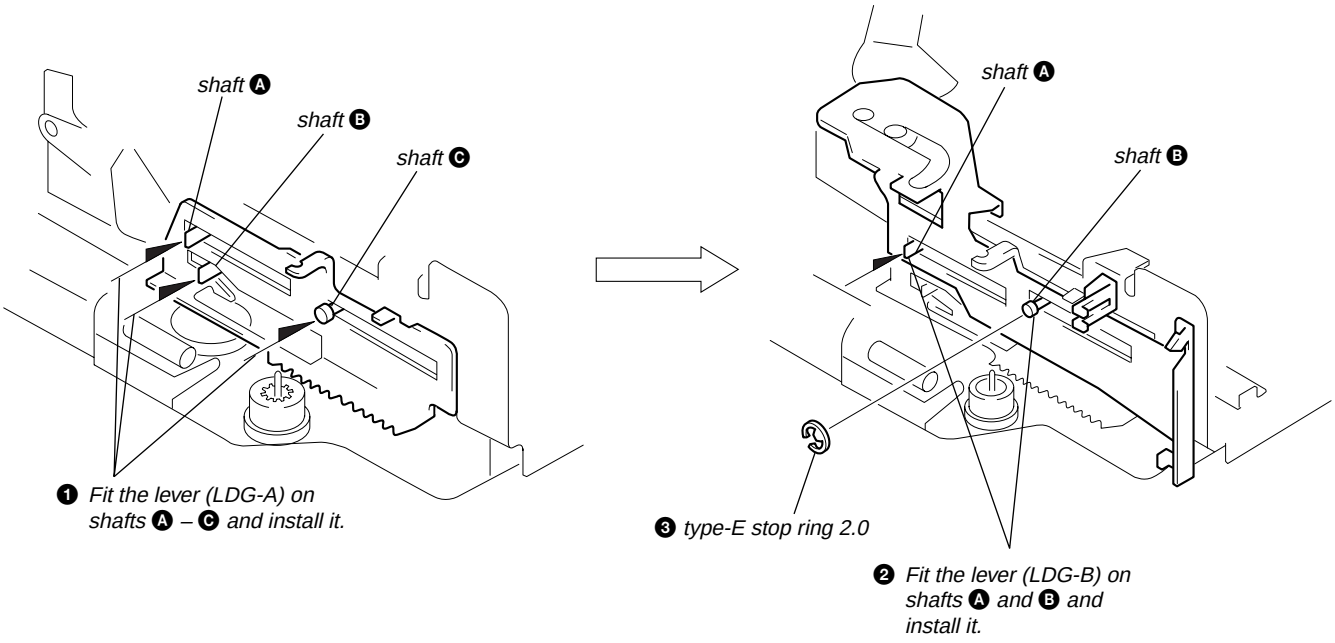
HOUSING



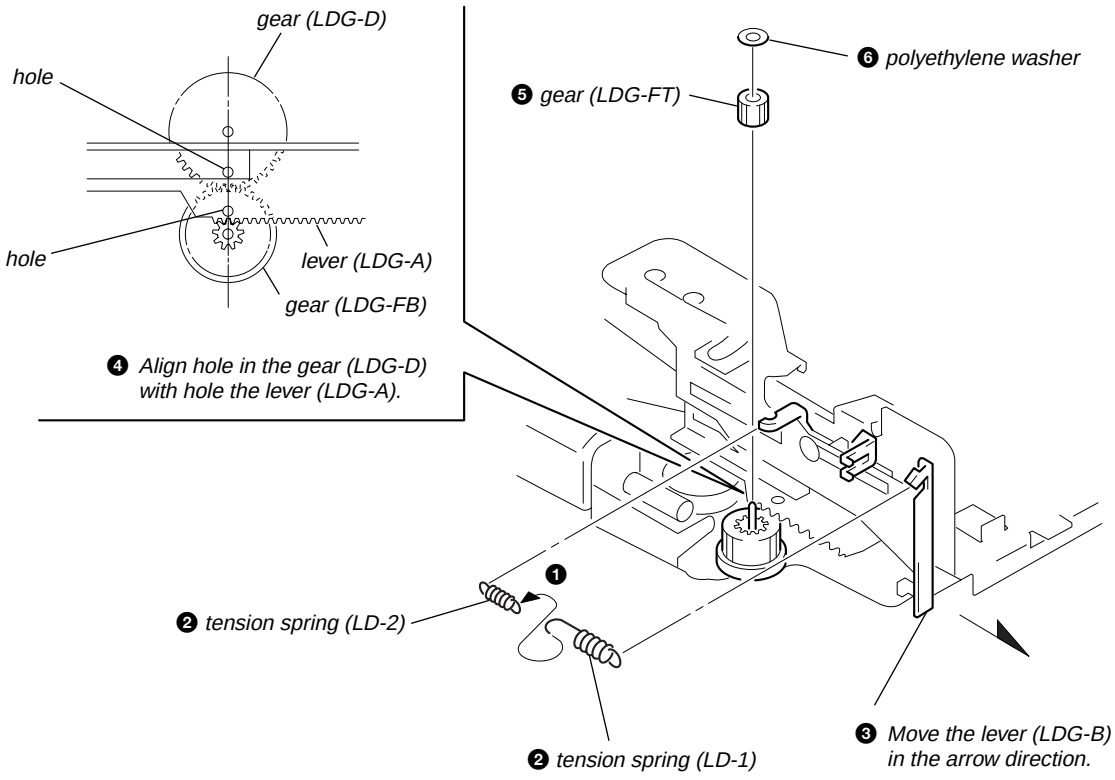
ARM (SUCTION)



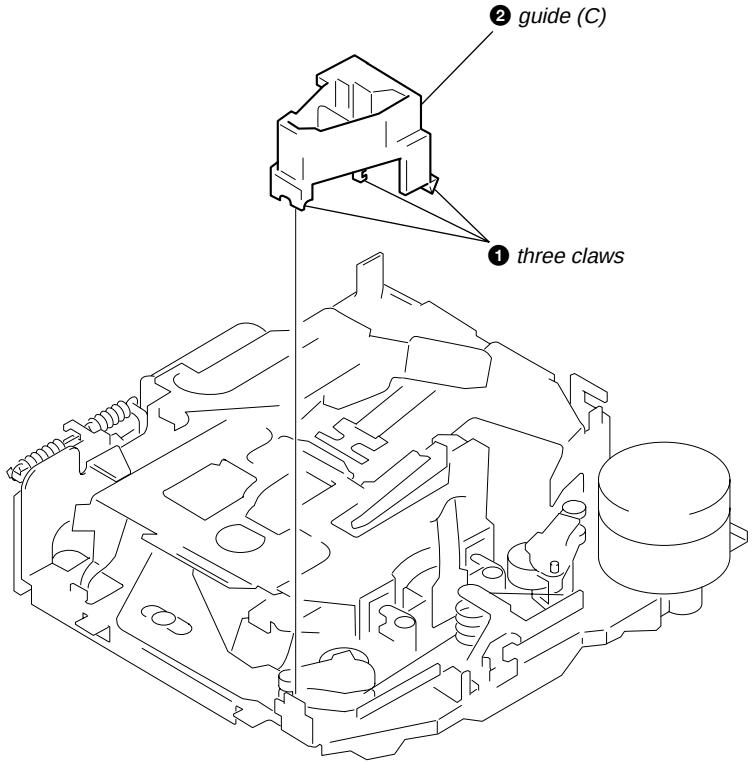
LEVER (LDG-A)/(LDG-B)



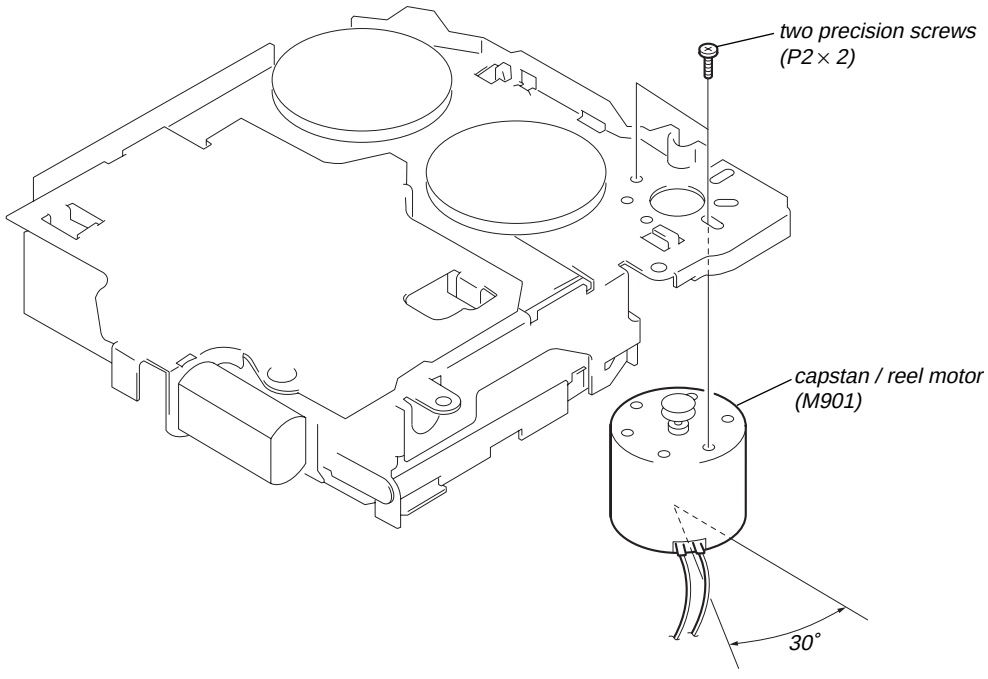
GEAR (LDG-FT)



GUIDE (C)



MOUNTING POSITION OF CAPSTAN/REEL MOTOR (M901)



SECTION 4
MECHANICAL ADJUSTMENTS

1. Clean the following parts with a denatured-alcohol-moistened swab:
   playback head pinch roller
   rubber belt capstan
   idlers
2. Demagnetize the playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the power supply voltage unless otherwise noted.

• Torque Measurement

Mode	Torque Meter	Meter Reading
Forward	CQ-102C	30 – 65 g•cm (0.42 – 0.90 oz•inch)
Forward Back Tension	CQ-102C	0.5 – 4.5g•cm (0.01 – 0.06 oz•inch)
Reverse	CQ-102RC	30 – 65 g•cm (0.42 – 0.90 oz•inch)
Reverse Back Tension	CQ-102RC	0.5 – 4.5g•cm (0.01 – 0.06 oz•inch)
FF, REW	CQ-201B	60 – 200 g•cm (0.83 – 2.78 oz•inch)

• Tape Tension Measurement

Mode	Tension Meter	Meter Reading
Forward	CQ-403A	more than 90 g (more than 3.18 oz)
Reverse	CQ-403R	more than 90 g (more than 3.18 oz)

SECTION 5
ELECTRICAL ADJUSTMENTS

TEST MODE

This set have the test mode function. In the test mode, FM Auto Scan/Stop Level and MW Auto Scan/Stop Level adjustments can be performed easier than it in ordinary procedure.

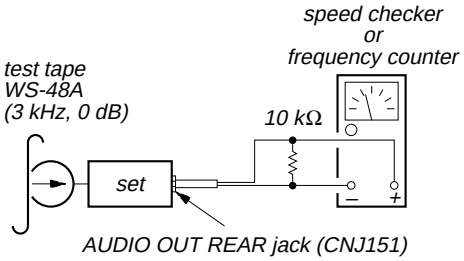
<Set the Test Mode>
1. Set the "power select" switch (S501) is "A (ON)" position.
2. Turn ON the regulated power supply. (All LEDs on the set lights up, and the clock is displayed.)
   Note: Press the [OFF] button, if the clock is not displayed.
3. Push the preset [4] button.
4. Push the preset [5] button.
5. Press the preset [1] button for more than two seconds.
6. Then the display indicates all lights, the test mode is set.

<Release the Test mode>
1. Push the [OFF] button.
2. Return the "power select" switch (S501) to initially set position.

See the adjustment location from on page 15 for the adjustment.

TAPE DECK SECTION 0 dB=0.775 V

Tape Speed Adjustment
Setting:



Procedure:
1. Put the set into the FWD PB mode.
2. Adjust adjustment resistor for inside capstan motor so that the reading on the speed checker or frequency counter becomes in specification.

Specification: Constant speed

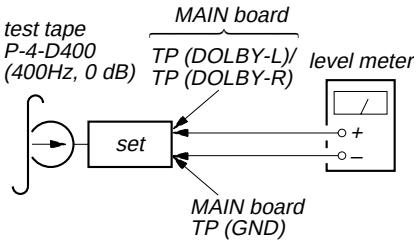
Speed checker	Frequency counter
–1.5 to +2.5%	2,955 to 3,075 Hz

Adjustment Location: See page 16.

Dolby Level Adjustment

Setting:

[SHIFT] button	: ON
Preset [3] (PLAY MODE) and [4](→) buttons	: NR OFF
SOUND (BAS) button	: Center
SOUND (TRE) button	: Center
SOUND (BAL) button	: Center
SOUND (FAD) button	: Center
SOUND (VOL) button	: Maximum
D-BASS control	: OFF



Procedure:

1. Put the set into the FWD PB mode.
2. Adjust RV101 (L-CH) and RV201 (R-CH) so that the level meter reading is –6±0.5 dB (0.37 to 0.41 V).

Adjustment Location: See page 16.

TUNER SECTION (XR-C7300/C7300W only)

XR-C7220, the tuner section has no adjustment.

0 dB=1 µV

Cautions during repair

When the tuner unit is defective, replace it by a new one because its internal block is difficult to repair.

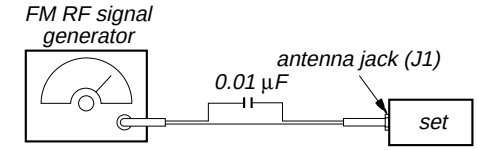
Note: Adjust the tuner section in the sequence shown below.

1. FM Auto Scan/Stop Level Adjustment
2. FM Stereo Separation Adjustment
3. MW Auto Scan/Stop Level Adjustment

FM Auto Scan/Stop Level Adjustment

Setting:

[SOURCE] button: FM
FREQUENCY SELECT switch: FM200 k



Carrier frequency : 97.9 MHz
Output level : 22 dB (12.6 µV)
Mode : mono
Modulation : 1 kHz, 75 kHz deviation

Procedure:

1. Set to the test mode. (See page 13)
2. Push the [SOURCE] button and set to FM.

Display

3. Adjust with the volume RV2 on TU1 so that the "FM" indication turns to "FM0" indication on the display window.
   But, in case of already indicated "FM0", turn the RV2 so that put out light "0" indication and adjustment.

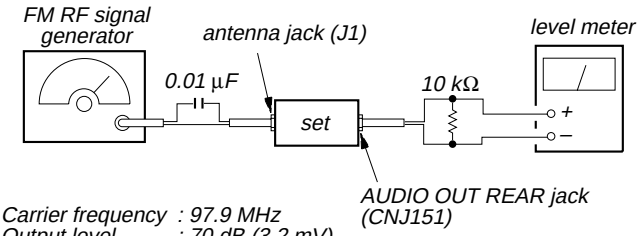
Display

Adjustment Location: See page 16.

FM Stereo Separation Adjustment

Setting:

SOURCE button : FM
FREQUENCY SELECT switch : FM 200 k



Carrier frequency : 97.9 MHz
Output level : 70 dB (3.2 mV)
Mode : stereo
Modulation : main: 1 kHz, 33.75 kHz deviation (45%)
sub: 1 kHz, 33.75 kHz deviation (45%)
19 kHz pilot: 7.5 kHz deviation (10%)

Procedure:

FM Stereo signal generator output channel	Level meter connection	Level meter reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV4 on TU1 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV4 on TU1 for minimum reading.

L-CH Stereo separation: Ⓐ-Ⓑ
R-CH Stereo separation: Ⓒ-Ⓓ
The separations of both channels should be equal.

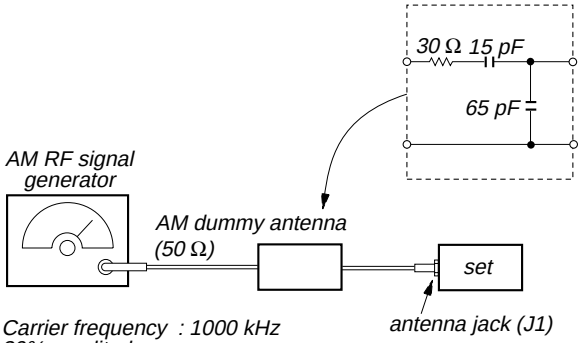
Specification: Separation more than 30 dB

Adjustment Location: See page 16.

MW Auto Scan/Stop Level Adjustment

Setting:

SOURCE and MODE buttons : MW
FREQUENCY SELECT switch : MW 10 k

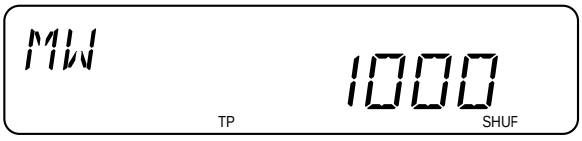


Carrier frequency : 1000 kHz
30% amplitude modulation by 1 kHz signal
Output level : 33 dB (44.7 µV)

Procedure:

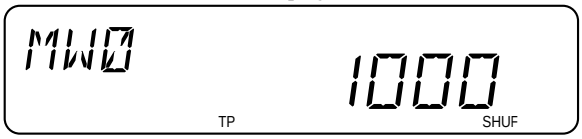
1. Set to the test mode. (See page 13)
2. Push the SOURCE button and set to FM.
3. Push the MODE button and set to MW.

Display



4. Adjust with the volume RV1 on TU1 so that the “MW” indication turns to “MW0” indication on the display window. But, in case of already indicated “MW0”, turn the RV1 so that put out light “0” indication and adjustment.

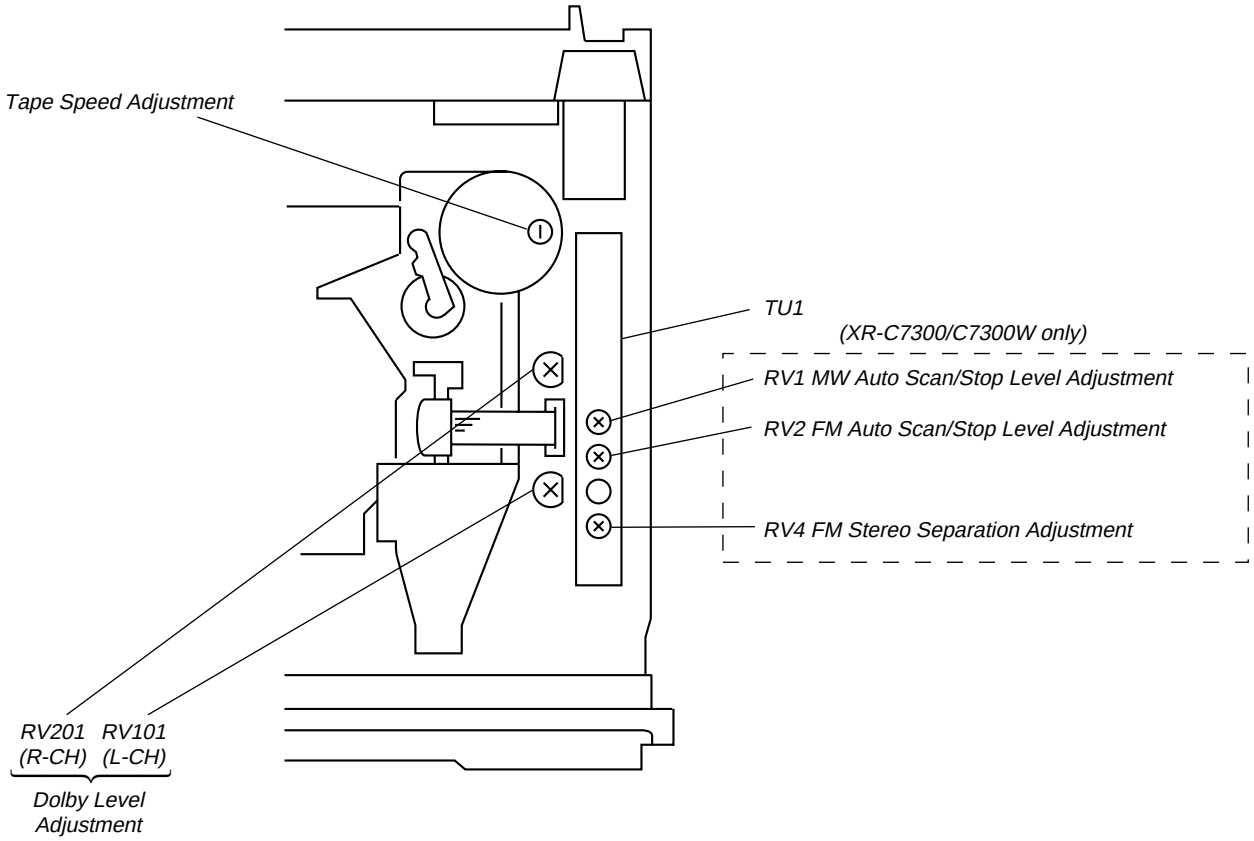
Display



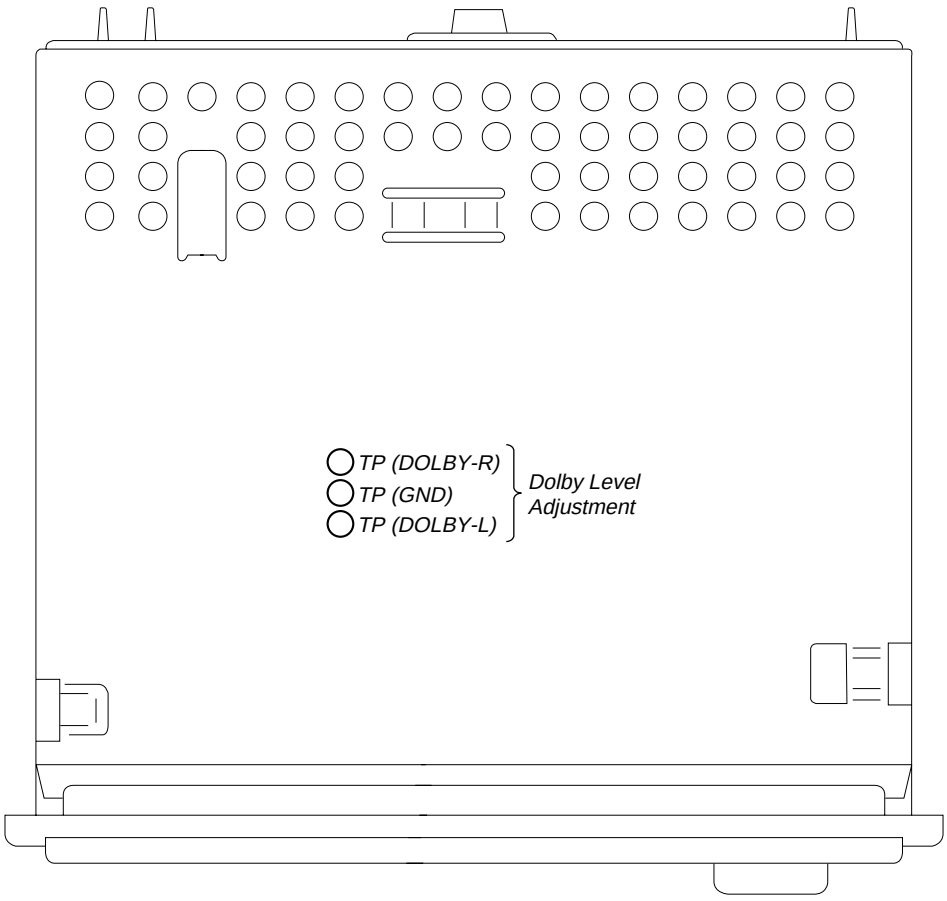
Adjustment Location: See page 16.

Adjustment Location:

– SET UPPER VIEW –



– SET BOTTOM VIEW –



SECTION 6
DIAGRAMS

6-1. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

Note on Printed Wiring Board:

- ⚬——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ▒▒▒ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

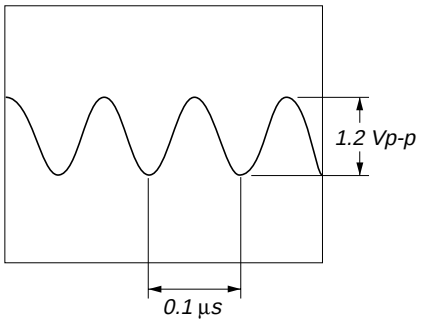
Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- % : indicates tolerance.
- △ : internal component.
- ▭ : panel designation.
- B + : B+ Line.
- ▬ : adjustment for repair.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : MW
  [ ] : SW
  〈〈 〉〉 : TAPE PLAY
  ✻ : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ➡ : AM (MW/SW)
  Σ : TAPE PLAY
  ⇨ : BUS AUDIO IN

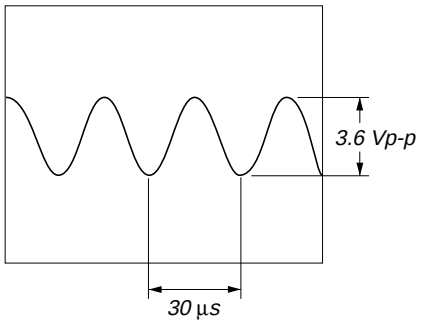
• **Waveforms**

– MAIN Board –

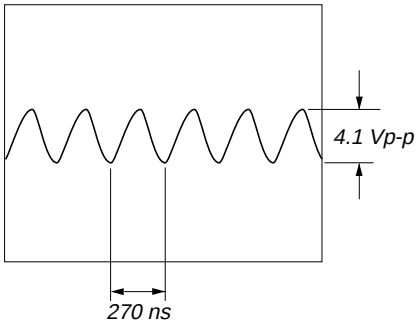
❶ IC1 ② (OSC OUT)



❷ IC501 ⑭ (X0A)

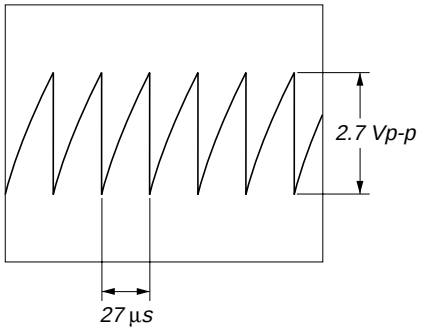


❸ IC501 ⑫ (X0)



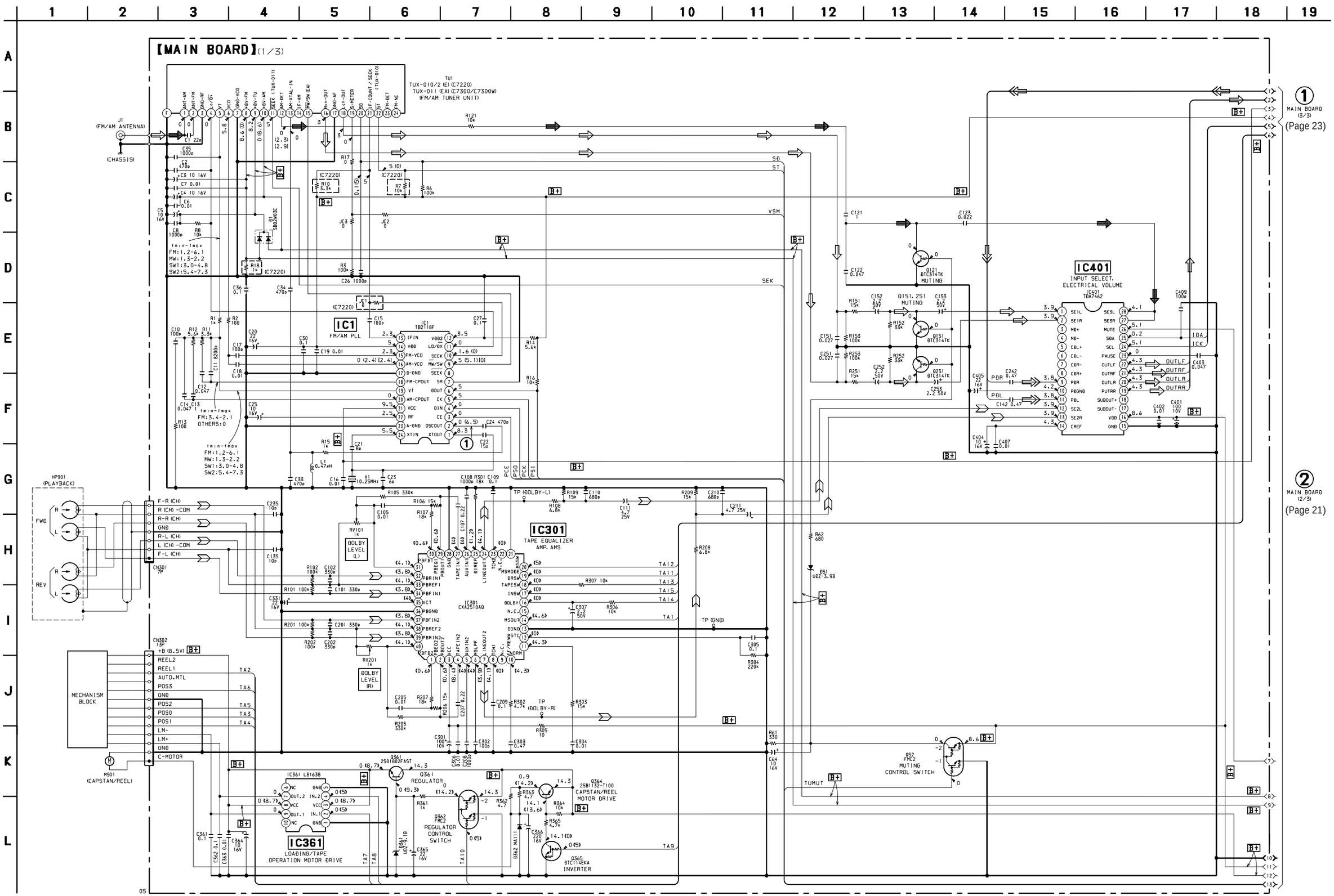
– KEY Board –

❶ IC901 ⑥⓪ OSC

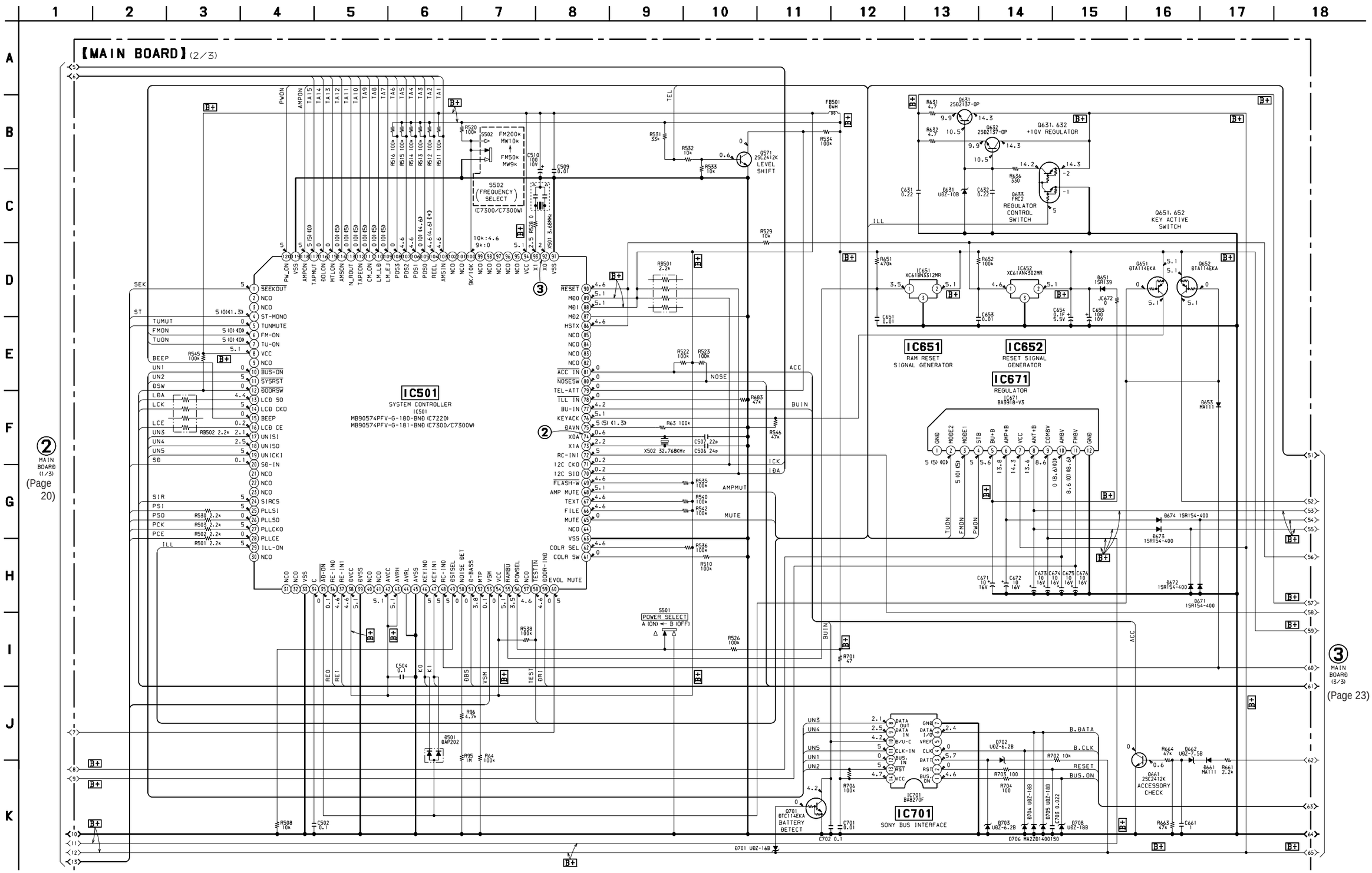


6-2. SCHEMATIC DIAGRAM – MAIN Section (1/3) –

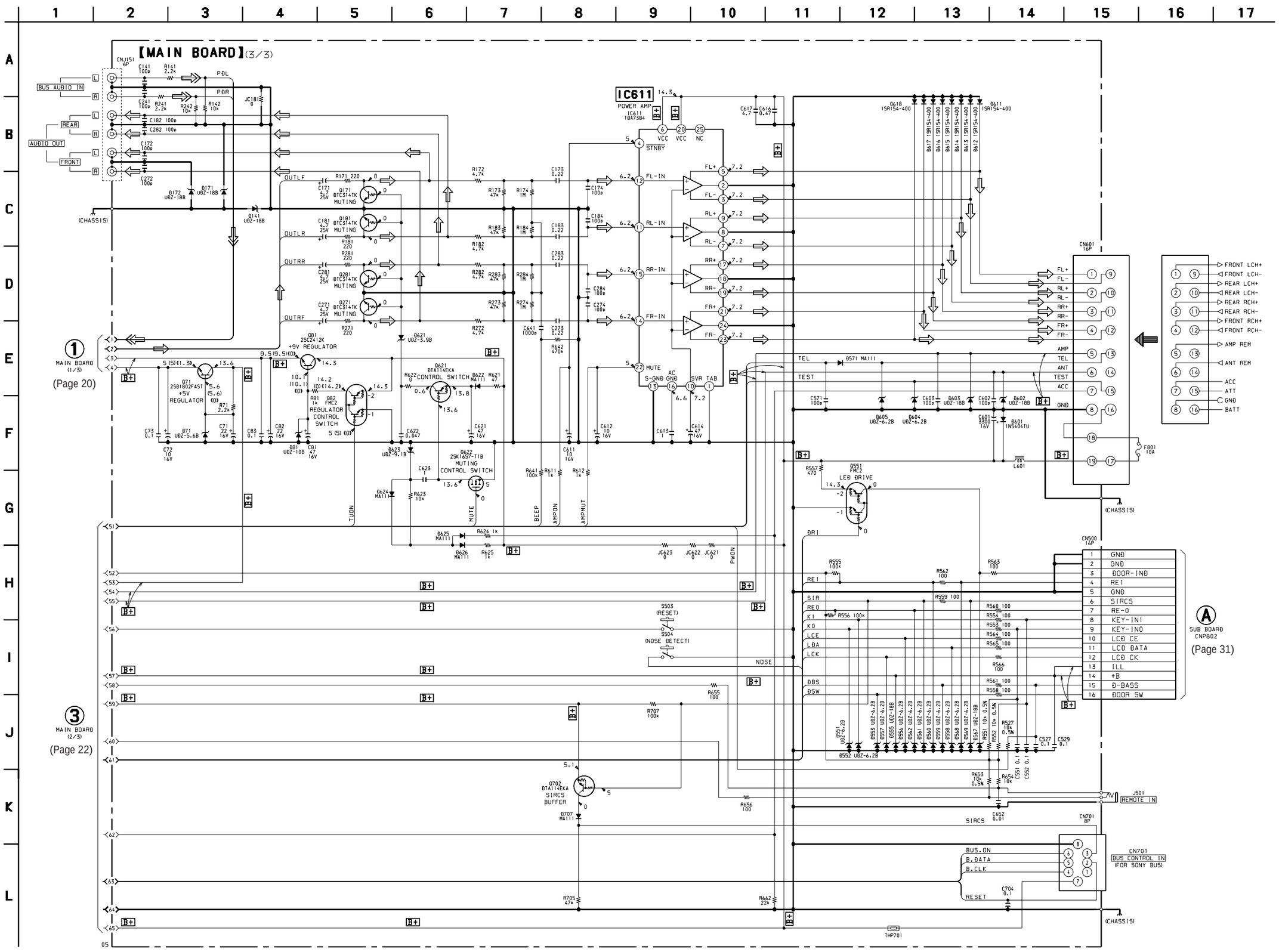
• See page 18 for Waveforms. • See page 33 for IC Block Diagrams.



6-3. SCHEMATIC DIAGRAM – MAIN Section (2/3) – • See page 18 for Waveforms. • See page 33 for IC Block Diagrams.



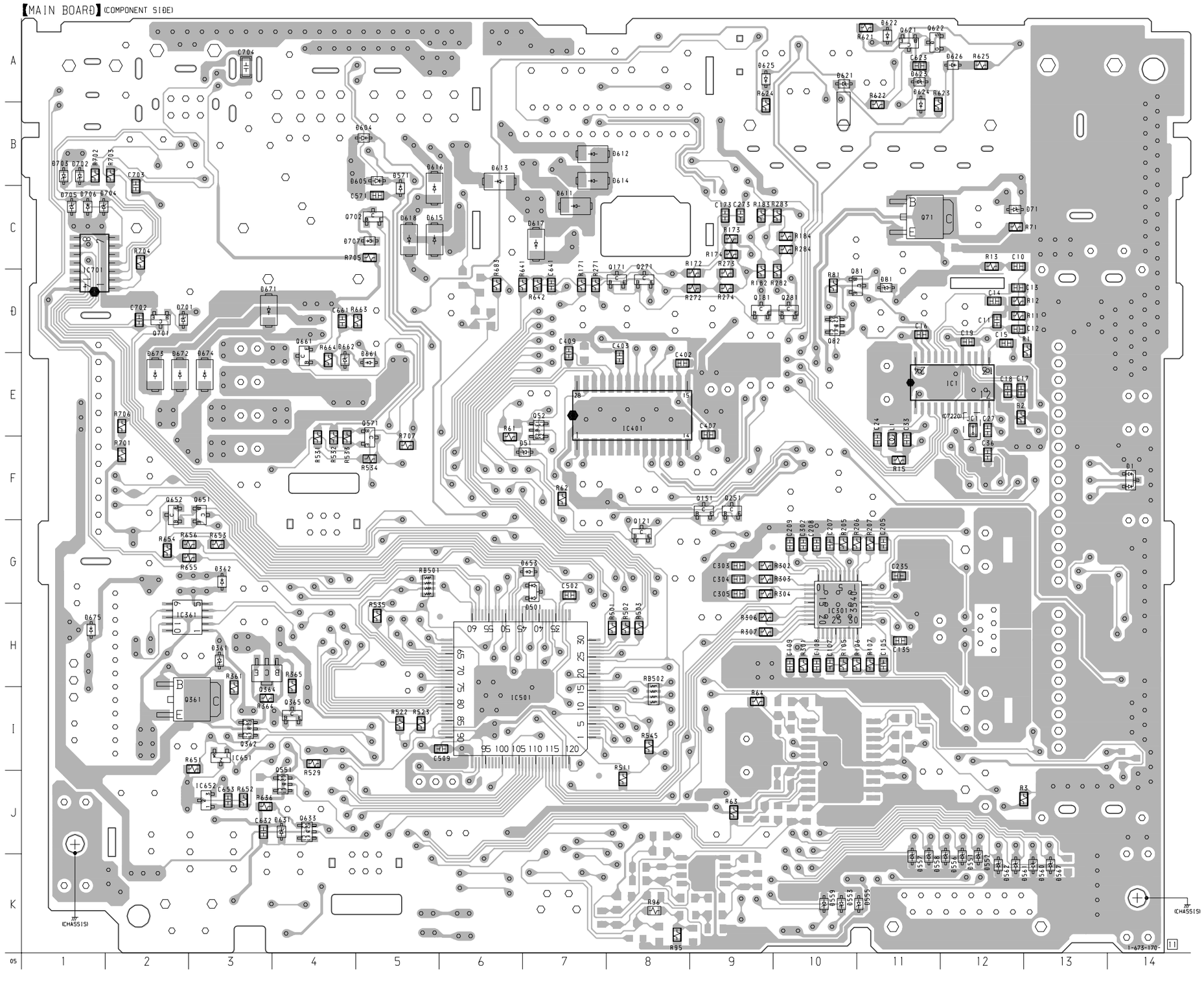
6-4. SCHEMATIC DIAGRAM – MAIN Section (3/3) –



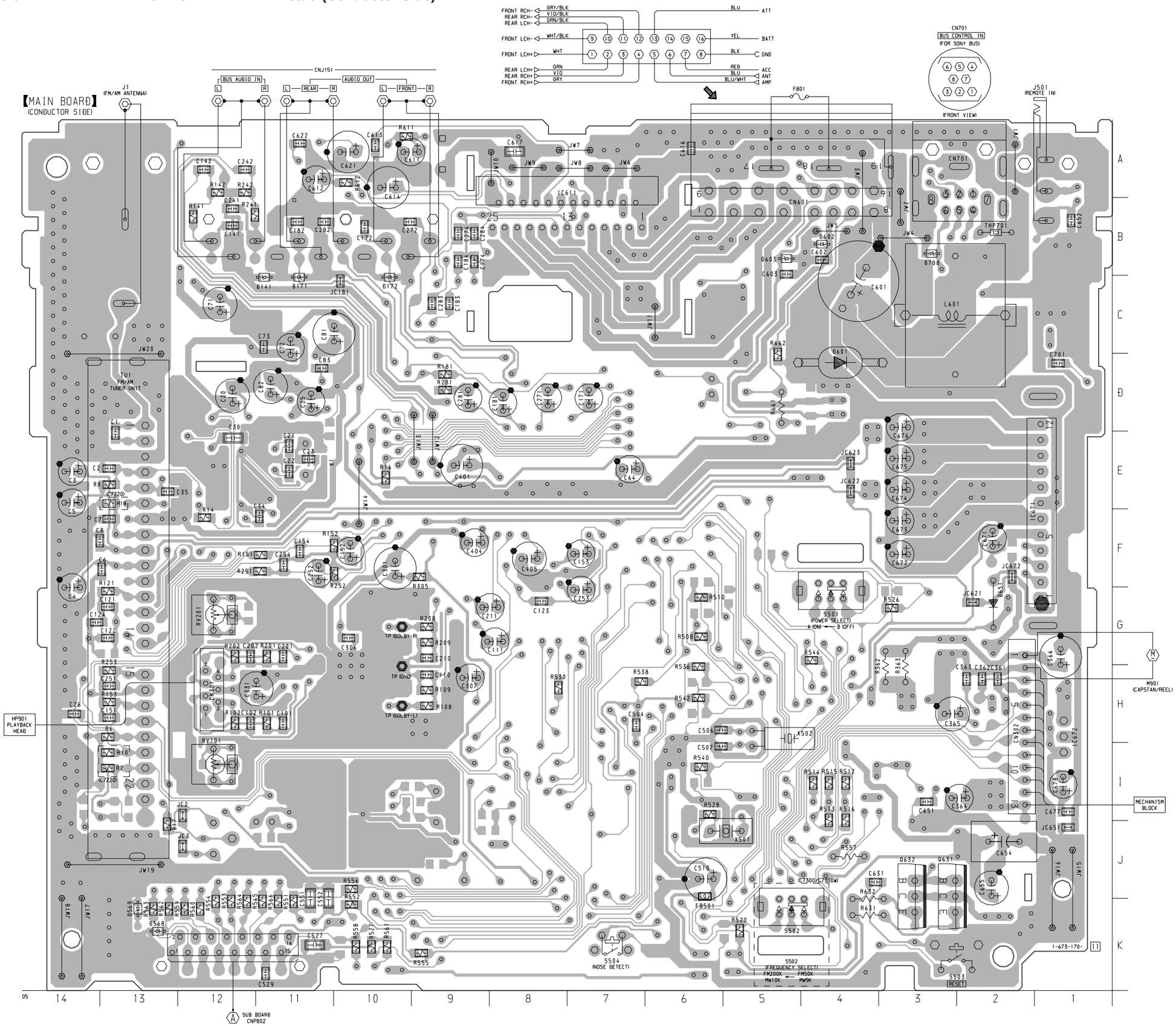
6-5. PRINTED WIRING BOARD – MAIN Board (Component Side) –

- **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D1	F-14	D675	H-1
D51	F-7	D701	D-2
D71	C-12	D702	B-1
D81	D-11	D703	B-1
D361	H-3	D704	C-1
D362	G-3	D705	C-1
D501	G-7	D706	C-1
D551	K-12	D707	C-5
D552	K-12		
D553	K-10	IC1	E-12
D555	K-11	IC301	H-10
D556	K-12	IC361	H-2
D557	K-11	IC401	E-8
D558	K-11	IC501	H-6
D559	K-10	IC651	I-3
D560	K-13	IC652	J-3
D561	K-12	IC701	C-1
D562	K-12		
D567	K-13	Q52	E-7
D571	C-5	Q71	C-11
D604	B-5	Q81	D-11
D605	B-5	Q82	D-10
D611	C-7	Q121	G-8
D612	B-7	Q151	F-9
D613	B-6	Q171	D-8
D614	B-7	Q181	D-9
D615	C-5	Q251	F-9
D616	C-5	Q271	D-8
D617	C-7	Q281	D-10
D618	C-5	Q361	I-3
D621	A-10	Q362	I-3
D622	A-11	Q364	H-3
D623	A-11	Q365	I-4
D624	B-11	Q551	J-4
D625	A-9	Q571	F-5
D626	A-12	Q621	A-11
D631	J-4	Q622	A-11
D653	G-7	Q633	J-4
D661	E-5	Q651	F-3
D662	E-4	Q652	F-2
D671	D-3	Q661	E-4
D672	E-2	Q701	D-2
D673	E-2	Q702	C-5
D674	E-3		



6-6. PRINTED WIRING BOARD – MAIN Board (Conductor Side) –

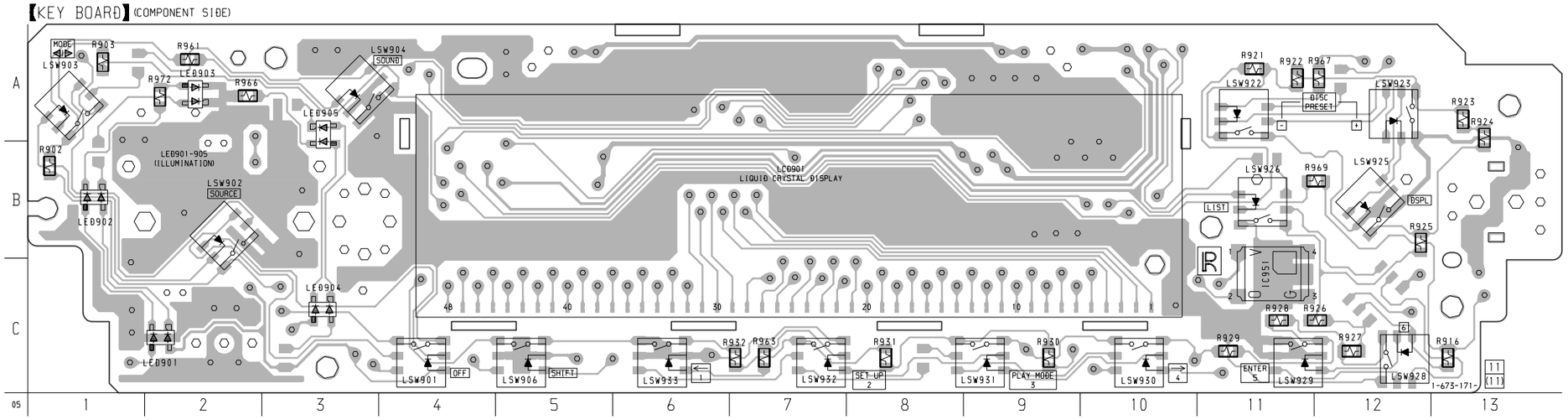


- **Semiconductor Location**

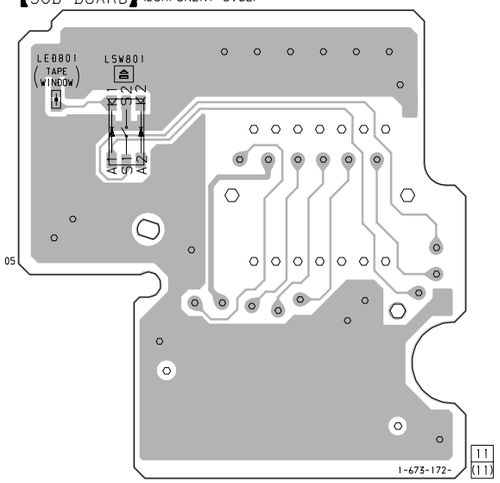
Ref. No.	Location
D141	C-11
D171	C-11
D172	C-10
D568	K-13
D569	K-13
D601	D-4
D602	B-4
D603	B-5
D651	G-2
D708	B-3
IC611	A-7
IC671	E-1
Q631	J-3
Q632	J-3

6-7. PRINTED WIRING BOARDS – PANEL Section –

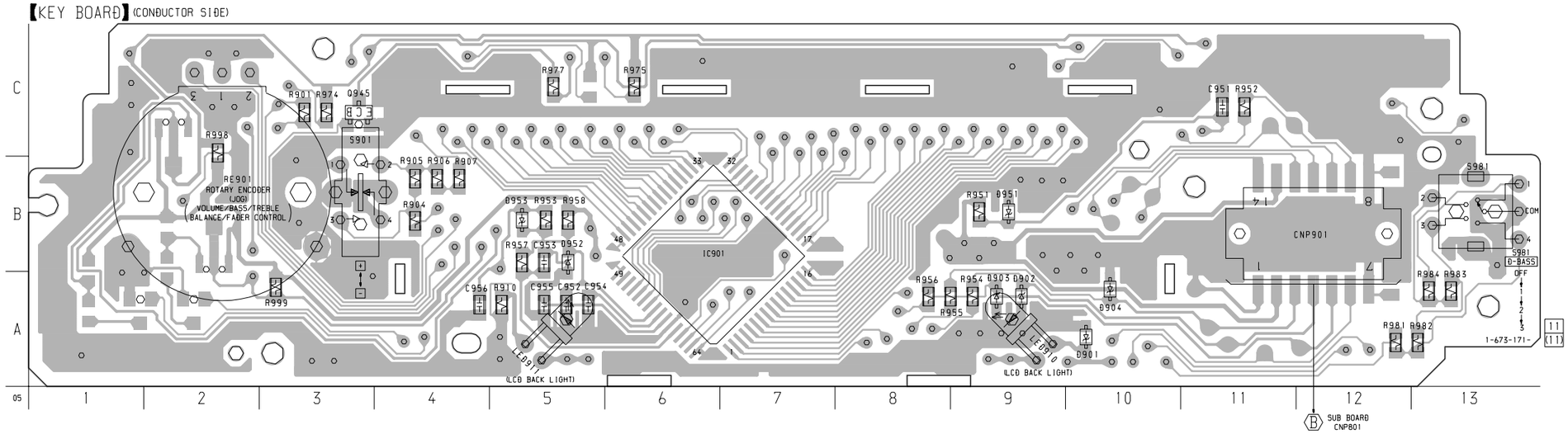
【KEY BOARD】(COMPONENT SIDE)



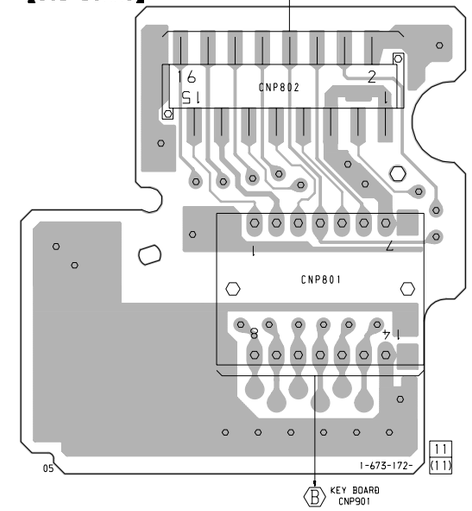
【SUB BOARD】(COMPONENT SIDE)



【KEY BOARD】(CONDUCTOR SIDE)



【SUB BOARD】(CONDUCTOR SIDE)



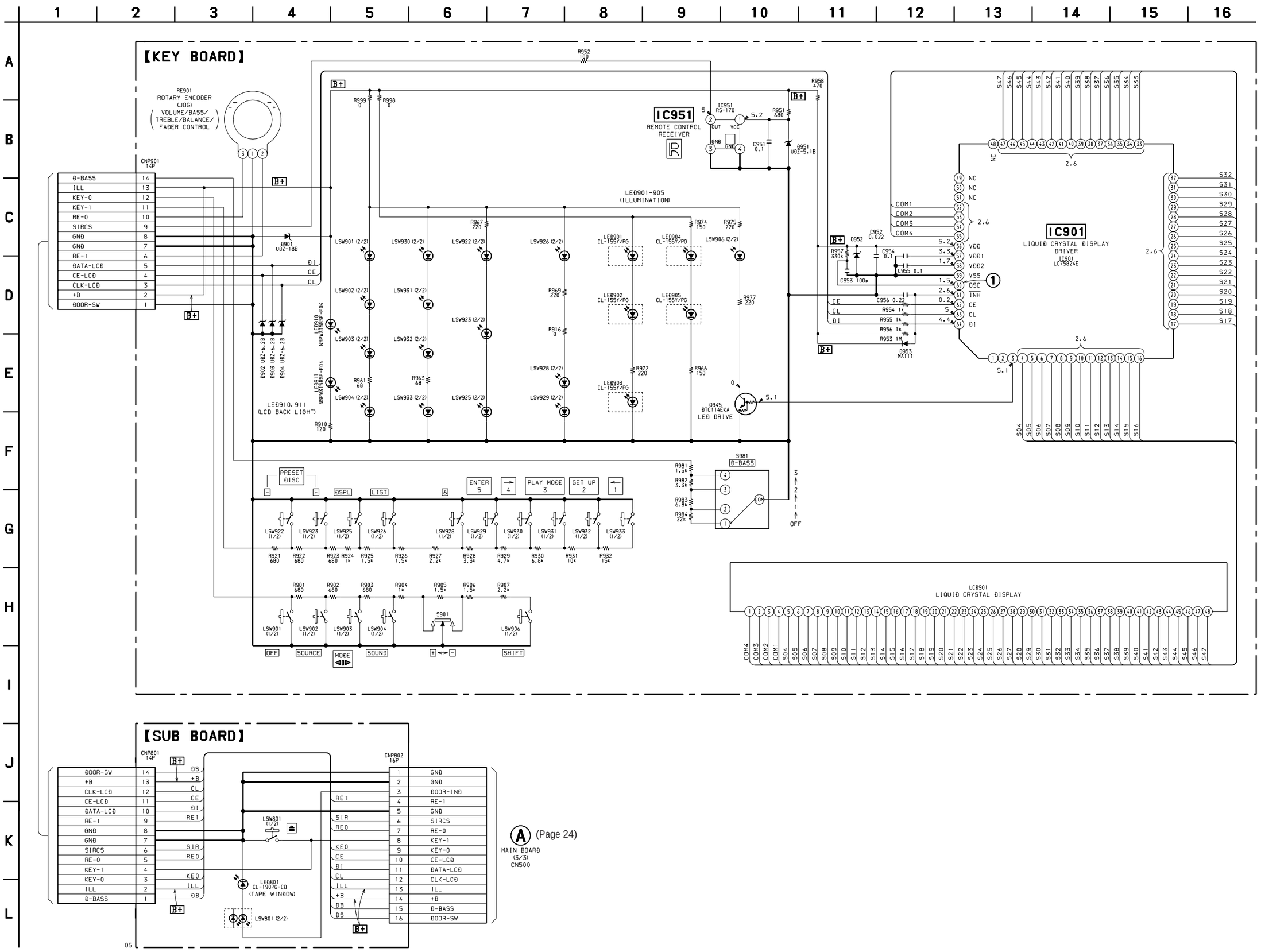
- **Semiconductor Location – KEY Board – (Component Side)**

Ref. No.	Location
IC951	C-11
LED901	C-2
LED902	B-1
LED903	A-2
LED904	C-3
LED905	A-3

- **Semiconductor Location – KEY Board – (Conductor Side)**

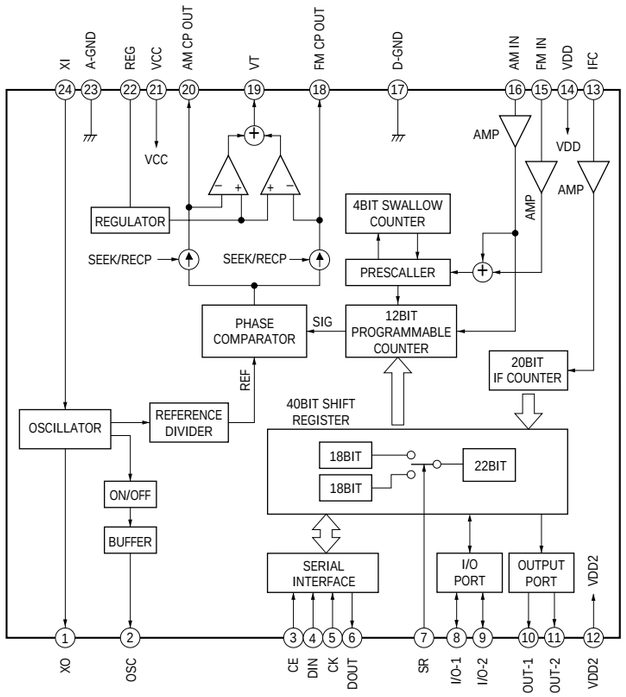
Ref. No.	Location
D901	A-10
D902	A-9
D903	A-9
D904	A-10
D951	B-9
D952	B-5
D953	B-5
IC901	B-6
LED910	A-9
LED911	A-5
Q945	C-3

6-8. SCHEMATIC DIAGRAM – PANEL Section – • See page 18 for Waveform.

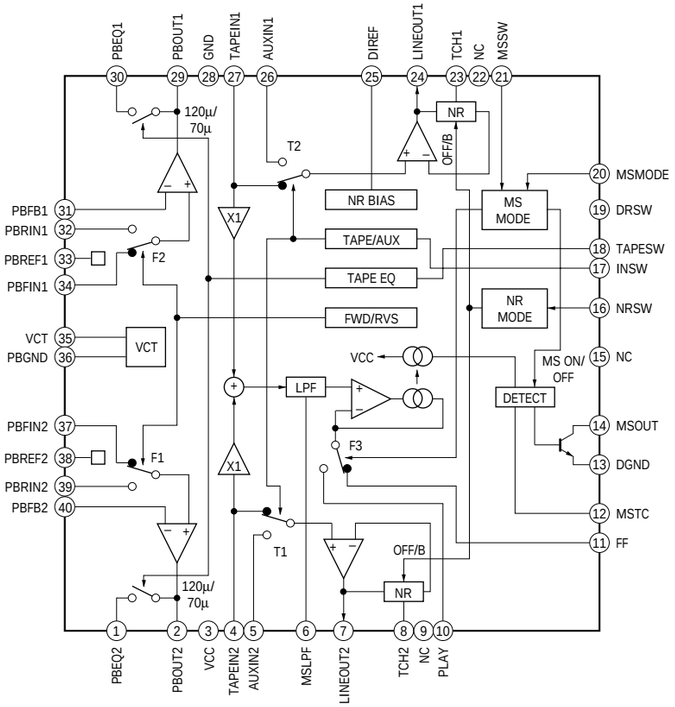


• **IC Block Diagrams**
– MAIN Board –

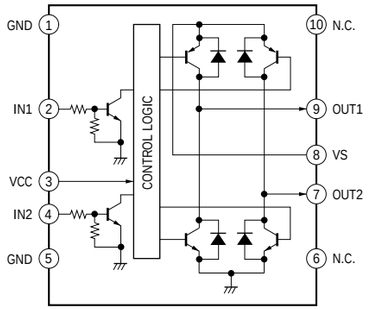
IC1 TB2118F (EL)



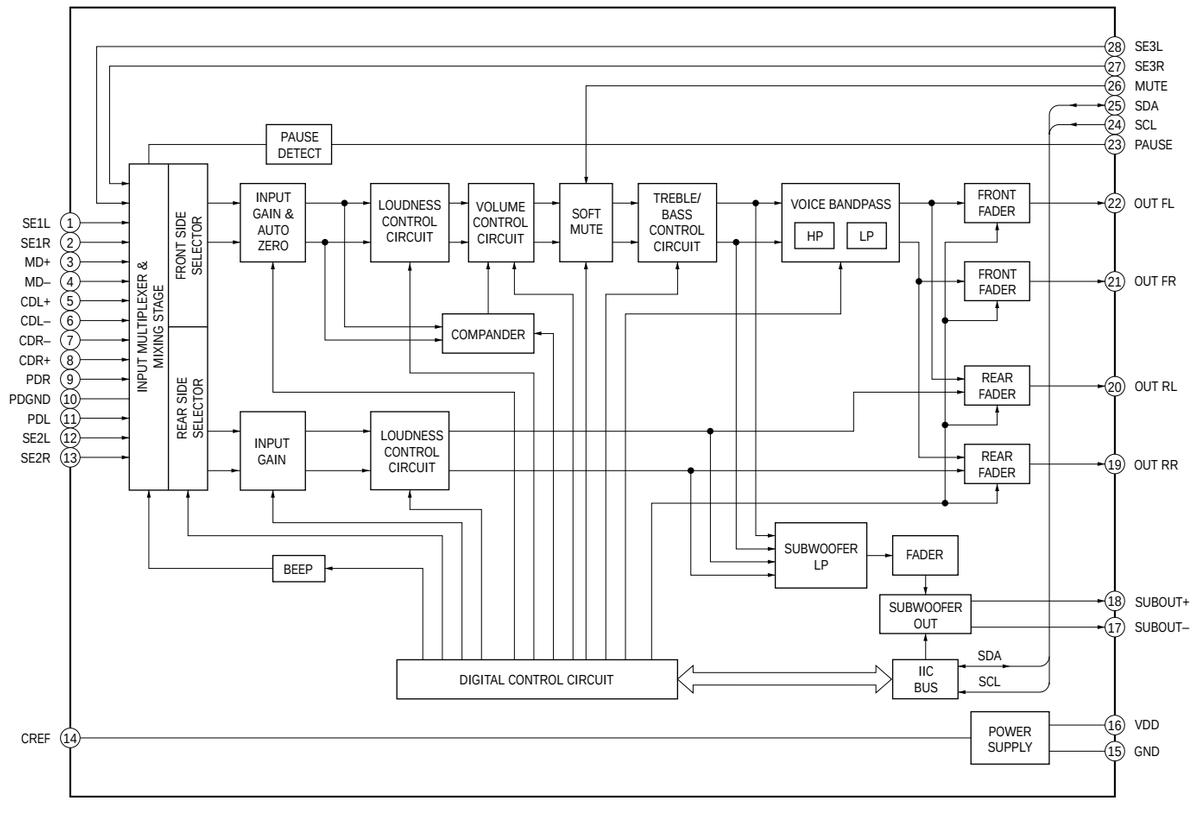
IC301 CXA2510AQ-T4



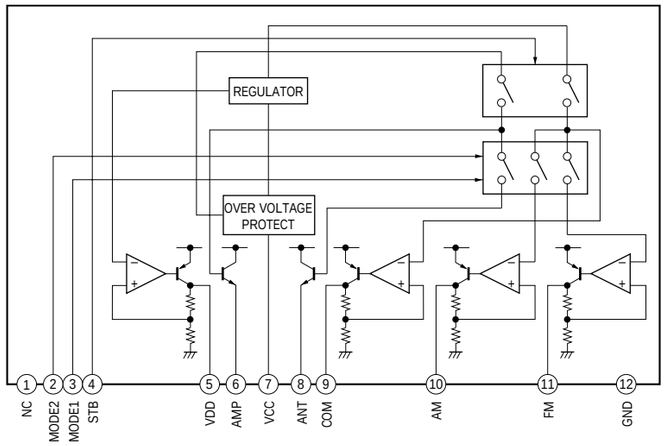
IC361 LB1638M



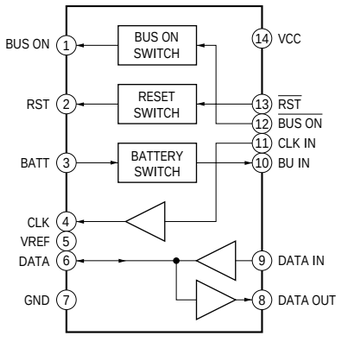
IC401 TDA7462D



IC671 BA3918-V3



IC701 BA8270F-E2



6-9. IC PIN FUNCTION DESCRIPTION

- **MAIN BOARD IC501 (SYSTEM CONTROLLER)**
  MB90574PFV-G-180-BND (XR-C7220) MB90574PFV-G-181-BND (XR-C7300/C7300W)

Pin No.	Pin Name	I/O	Function
1	$\overline{\text{SEEKOUT}}$	O	Seek control signal output to the FM/AM tuner unit (TU1) AM mode: Used for IF count output/SD output request/AGC cut at SEEK or BTM FM mode: Used for SD speed up at SEEK, BTM, or AF "L" is output at tuner off
2, 3	NCO	O	Not used (open)
4	ST-MONO	I/O	FM stereo broadcasting detection signal input from the FM/AM tuner unit (TU1), or forced monaural control signal output to the FM/AM tuner unit (TU1) "L" is input in the FM stereo mode, or "L" is output in the forced monaural mode
5	TUNMUTE	O	Muting on/off control signal output of the FM and AM tuner signal "H": muting on
6	FM-ON	O	FM system power supply on/off control signal output to the BA3918 (IC671) "L": AM power on, "H": FM power on
7	TU-ON	O	Tuner system power supply on/off control signal output to the BA3918 (IC671) "H": tuner power on
8	VCC	—	Power supply terminal (+5V)
9	NCO	O	Not used (open)
10	$\overline{\text{BUS-ON}}$	O	Bus on/off control signal output to the SONY bus interface (IC701) "L": bus on
11	$\overline{\text{SYSRST}}$	O	Reset signal output to the SONY bus interface (IC701) "L": reset
12	$\overline{\text{DOORSW}}$	I	Front panel open/close detection signal input "L" is input when the front panel is closed
13	LCD SO	O	Serial data output to the liquid crystal display driver (IC901)
14	LCD CKO	O	Serial data transfer clock signal output to the liquid crystal display driver (IC901)
15	BEEP	O	Beep sound drive signal output terminal
16	LCD CE	O	Chip enable signal output to the liquid crystal display driver (IC901) "H" active
17	UNISI	I	Serial data input from the SONY bus interface (IC701)
18	UNISO	O	Serial data output to the SONY bus interface (IC701)
19	UNICKO	O	Serial data transfer clock signal output to the SONY bus interface (IC701)
20	SD-IN	I	Station detector detect input from the FM/AM tuner unit (TU1) Stop level for SEEK, BTM, etc. is determined SD is present at input of "H"
21 to 23	NCO	O	Not used (open)
24	SIRCS	I	Sircs remote control signal input from the remote control receiver (IC951)
25	PLLSI	I	PLL serial data input from the FM/AM PLL (IC1)
26	PLLSO	O	PLL serial data output to the FM/AM PLL (IC1)
27	PLLCKO	O	PLL serial data transfer clock signal output to the FM/AM PLL (IC1)
28	PLLCE	O	PLL chip enable signal output to the FM/AM PLL (IC1) "H" active
29	ILL-ON	O	Power on/off control signal output of the illumination LED and liquid crystal display driver (IC901) "H": power on Depends on initial setting of power select switch (S501) Power select switch (S501) on: "H" output at the accessory on Power select switch (S501) off: "H" output at the power on
30 to 32	NCO	O	Not used (open)
33	VSS	—	Ground terminal
34	C	—	Connected to coupling capacitor for the power supply
35	$\overline{\text{AD-ON}}$	O	A/D converter power control signal output terminal When the KEYACK (pin ⑯) that controls reference voltage power for key A/D conversion input is active, "L" is output from this terminal to enable the input
36	RE-IN0	I	Dial pulse input of the rotary encoder (RE900) (for VOLUME/BASS/TREBLE/BALANCE/FADER control)
37	RE-IN1	I	
38	DVCC	—	Power supply terminal (+5V) (for D/A converter)
39	DVSS	—	Ground terminal (for D/A converter)

Pin No.	Pin Name	I/O	Function
40, 41	NCO	O	Not used (open)
42	AVCC	—	Power supply terminal (+5V) (for A/D converter)
43	AVRH	I	Reference voltage (+5V) input terminal (for A/D converter)
44	AVRL	I	Reference voltage (0V) input terminal (for A/D converter)
45	AVSS	—	Ground terminal (for A/D converter)
46	KEYIN0	I	Key input terminal (A/D input) (LSW901 to LSW904, S901, LSW906) OFF, SOURCE, MODE ◀II▶, SOUND, SEEK/AMS ⏮ ◀◀ – ▶▶ ⏭ +, SHIFT keys input
47	KEYIN1	I	Key input terminal (A/D input) (LSW801, LSW922, LSW923, LSW925, LSW926, LSW928 to LSW933) ⏏, PRESET DISC –/+, DSPL, 6, 5 ENTER, 4 →, 3 PLAY MODE, 2 SET UP, 1 ← keys input
48	RC-IN0	I	Rotary remote commander key input terminal (A/D input)
49	DSTSEL	I	Destination setting terminal (fixed at "L")
50	NOISE DET	I	Noise level detection signal input at SEEK mode (A/D input) Not used (open)
51	D-BASS	I	D-BASS switch (S981) input terminal (A/D input)
52	MTP	I	Multi-path detection signal input from the RDS decoder Not used (fixed at "L")
53	VSM	I	FM and AM signal meter voltage detection input from the FM/AM tuner unit (TU1) (A/D input)
54	VCC	—	Power supply terminal (+5V)
55	$\overline{\text{RAMBU}}$	I	Internal RAM reset detection signal input from the XC61BN3312MR (IC651) Input terminal to check that RAM data are not destroyed due to low voltage This checking is made within 100 msec after reset
56	POWSEL	I	Power select switch (S501) input terminal "L": off (halt mode), "H": on (operation mode)
57	NCO	O	Not used (open)
58	$\overline{\text{TESTIN}}$	I	Setting terminal for the test mode "L": test mode, Normally: fixed at "H"
59	DOOR-IND	O	LED drive signal output of the tape window illumination and ⏏ indicators (LED801, LSW801) "H": LED on "H" is output to turn on LED when front panel is opened
60	EVOL MUTE	O	Muting control signal output to the electrical volume (IC401) Volume minimum: "∞" output ("H" active)
61	COLR SW	I	Setting terminal for the illumination color "L": 2 colors, "H": 1 color (fixed at "L" in this set)
62	COLR SEL	I	Setting terminal for the illumination color "L": amber, "H": green (fixed at "H" in this set)
63	VSS	—	Ground terminal
64	NCO	O	Not used (open)
65	MUTE	O	Audio line muting on/off control signal output terminal "H": muting on
66	FILE	I	Input terminal to set whether custom file function is provided or not "L": none, "H": provided (Fixed at "H" in this set)
67	TEXT	I	Input terminal to set whether CD text function is provided or not "L": none, "H": provided (Fixed at "H" in this set)
68	AMP MUTE	O	Muting on/off control signal output to the power amplifier (IC611) "L": muting on
69	$\overline{\text{FLASH-W}}$	I	Internal flash memory data write mode detection signal input terminal "L": data write mode Not used (fixed at "H" in this set)
70	I2C SIO	I/O	Two-way data bus with the electrical volume (IC401)
71	I2C CKO	O	Bus clock signal output to the electrical volume (IC401)
72	RC-IN1	I	Rotary remote commander shift key input terminal "L": shift
73	X1A	O	Sub system clock output terminal (32.768 kHz)
74	X0A	I	Sub system clock input terminal (32.768 kHz)
75	DAVN	I	Data transmit completed detect signal input from the RDS decoder "H" active Not used (fixed at "L")

Pin No.	Pin Name	I/O	Function
76	KEYACK	I	Input of acknowledge signal for the key entry Acknowledge signal is input to accept function and eject keys in the power off status On at input of "H"
77	BU-IN	I	Battery detect signal input from the SONY bus interface (IC701) and battery detect circuit "L" is input at low voltage
78	$\overline{\text{ILL IN}}$	I	Auto dimmer control illumination line detection signal input terminal "L" is input at dimmer detection Fixed at "L" in this set
79	TEL-ATT	I	Telephone muting signal input terminal At input of "H", the signal is attenuated by –20 dB
80	$\overline{\text{NOSESW}}$	I	Front panel block remove/attach detection switch (S504) input terminal "L": front panel is attached
81	$\overline{\text{ACC IN}}$	I	Accessory detect signal input terminal "L": accessory on
82 to 85	NCO	O	Not used (open)
86	HSTX	I	Hardware standby input terminal "L": hardware standby mode Reset signal input in this set
87	MD2	I	Setting terminal for the CPU operational mode (fixed at "L" in this set)
88	MD1	I	Setting terminal for the CPU operational mode (fixed at "H" in this set)
89	MD0	I	Setting terminal for the CPU operational mode (fixed at "H" in this set)
90	$\overline{\text{RESET}}$	I	System reset signal input from the reset signal generator (IC652) and reset switch (S503) "L": reset "L" is input for several 100 msec after power on, then it changes to "H"
91	VSS	—	Ground terminal
92	X0	I	Main system clock input terminal (3.68 MHz)
93	X1	O	Main system clock output terminal (3.68 MHz)
94	VCC	—	Power supply terminal (+5V)
95 to 99	NCO	O	Not used (open)
100	9K/10K	I	Frequency select switch (S502) input terminal "L": AM 9 kHz/FM 50 kHz step, "H": AM 10 kHz/FM 200 kHz step Used for the XR-C7300/C7300W only
101	NCO	O	Not used (open)
102	NCO	I	Not used (open)
103	AMSIN	I	Whether a music is present or not from CXA2510AQ (IC301) is detected at auto music sensor "L": music is present, "H": music is not present
104	REEL	I	Rotation detect signal input from supply reel sensor and take-up reel sensor on the deck mechanism
105	POS0	I	Tape position (EJECT/FF/REW/ REV/FWD mode) detect input from the tape operation switch on the deck mechanism POS0: "L": EJECT mode, "H": others mode POS1: "L": FF and FWD mode, "H": others mode POS2: "L": REW mode, "H": others mode POS3: "L": REV and EJECT mode, "H": others mode
106	POS1	I	
107	POS2	I	
108	POS3	I	
109	LM-EJ	O	Motor drive signal output to the loading/tape operation motor drive (IC361) "H" active (For the eject direction and reverse side operation) *1
110	LM-LOD	O	Motor drive signal output to the loading/tape operation motor drive (IC361) "H" active (For the loading direction and forward side operation) *1
111	CM-ON	O	Capstan/reel motor (M901) drive signal output terminal "H": motor on
112	TAPEON	O	Tape system power supply on/off control signal output terminal "H": tape on
113	N-ROUT	O	Forward/reverse direction control signal output to the CXA2510AQ (IC301) "L": forward direction, "H": reverse direction
114	AMSON	O	Tape auto music sensor control signal output to the CXA2510AQ (IC301) "L" is output to lower the gain for audio level at FF/REW mode
115	MTLON	I/O	METAL control in/out terminal At initial mode: auto/manual mode selection input of METAL function (manual at "L" input) At manual mode: METAL on/off control signal output to the CXA2510AQ (IC301) (METAL on at "H" output) At auto mode: input at MTLIN (pin ⑱)

Pin No.	Pin Name	I/O	Function
116	DOLON	I/O	Dolby control in/out terminal At initial mode: valid/invalid selection input of dolby function (valid at "L" input) At normal mode: dolby on/off control signal output to the CXA2510AQ (IC301) (dolby on at "H" output)
117	TAPE MUTE	O	Tape muting on/off control signal output to the CXA2510AQ (IC301) "H": muting on Active at ATA, FF/REW mode
118	AMP ON	O	Standby on/off control signal output to the power amplifier (IC611) "L": standby mode, "H": amp on
119	VSS	—	Ground terminal
120	POWON	O	Main system power supply on/off control signal output to the BA3918 (IC671) "H": power on

*1 Loading/tape operation motor control

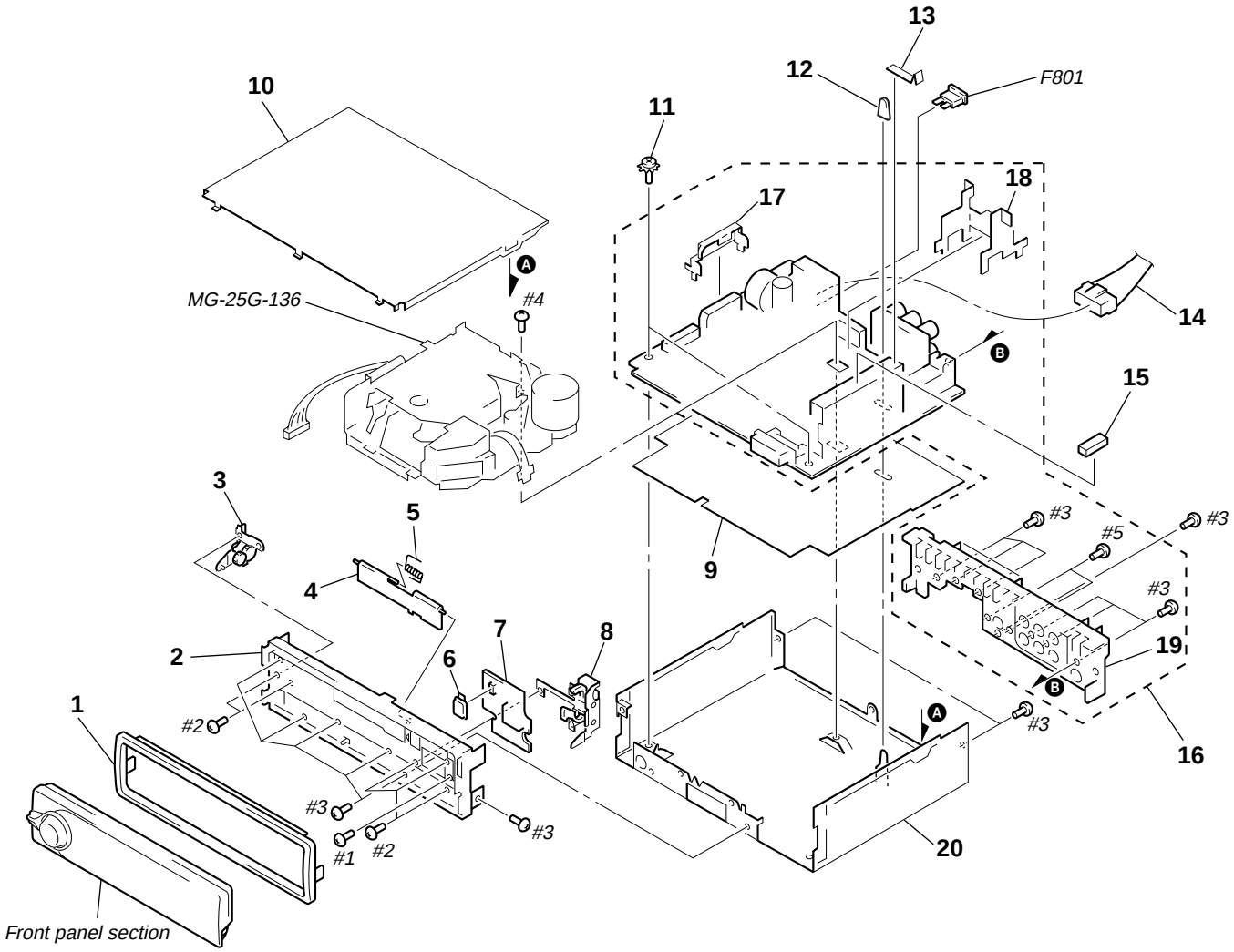
Mode / Terminal	STOP	LOADING/ FORWARD	EJECT/ REVERSE	BRAKE
LM-LOD (pin ⑩)	"L"	"H"	"L"	"H"
LM-EJ (pin ⑨)	"L"	"L"	"H"	"H"

SECTION 7
EXPLODED VIEWS

NOTE:

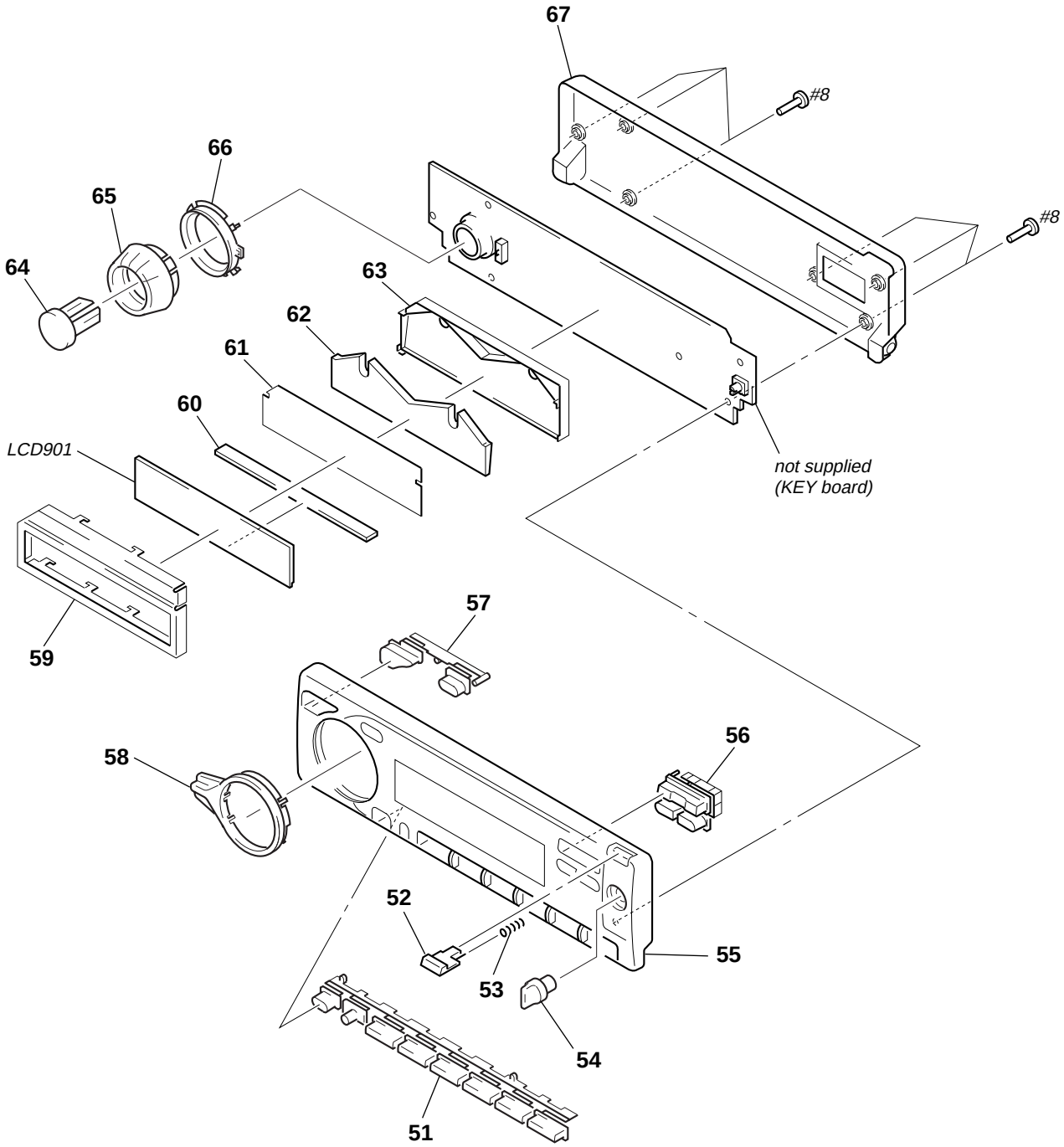
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

(1) CHASSIS SECTION



Ref. No.	Part No.	Description	Remark
1	3-031-048-01	COLLAR (C7220/C7300)	
1	3-031-048-11	COLLAR (C7300W)	
2	X-3376-749-1	PANEL ASSY, SUB	
3	X-3376-699-1	GEAR ASSY	
4	3-027-437-11	DOOR, CASSETTE	
5	3-935-003-01	SPRING, TORSION	
6	3-031-188-01	BUTTON (EJECT) (⏏)	
* 7	1-673-172-11	SUB BOARD	
8	X-3376-700-1	LOCK ASSY	
* 9	3-031-189-01	SHEET, INSULATING	
* 10	X-3373-269-1	COVER ASSY (ISO)	
11	3-915-923-01	SCREW, GROUND POINT	
12	3-012-859-01	CAP (25), RUBBER	
13	3-937-650-01	PLATE (C), GROUND	
14	1-776-207-72	CORD (WITH CONNECTOR) (POWER)	
15	3-935-014-01	CUSHION (U)	
* 16	A-3317-359-A	MAIN BOARD, COMPLET (C7220)	
* 16	A-3317-360-A	MAIN BOARD, COMPLET (C7300/C7300W)	
* 17	3-031-828-01	BRACKET (REG. IC)	
* 18	3-018-390-01	BRACKET (IC)	
* 19	3-031-023-01	HEAT SINK	
* 20	3-031-049-01	CHASSIS	
F801	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) (10A)	

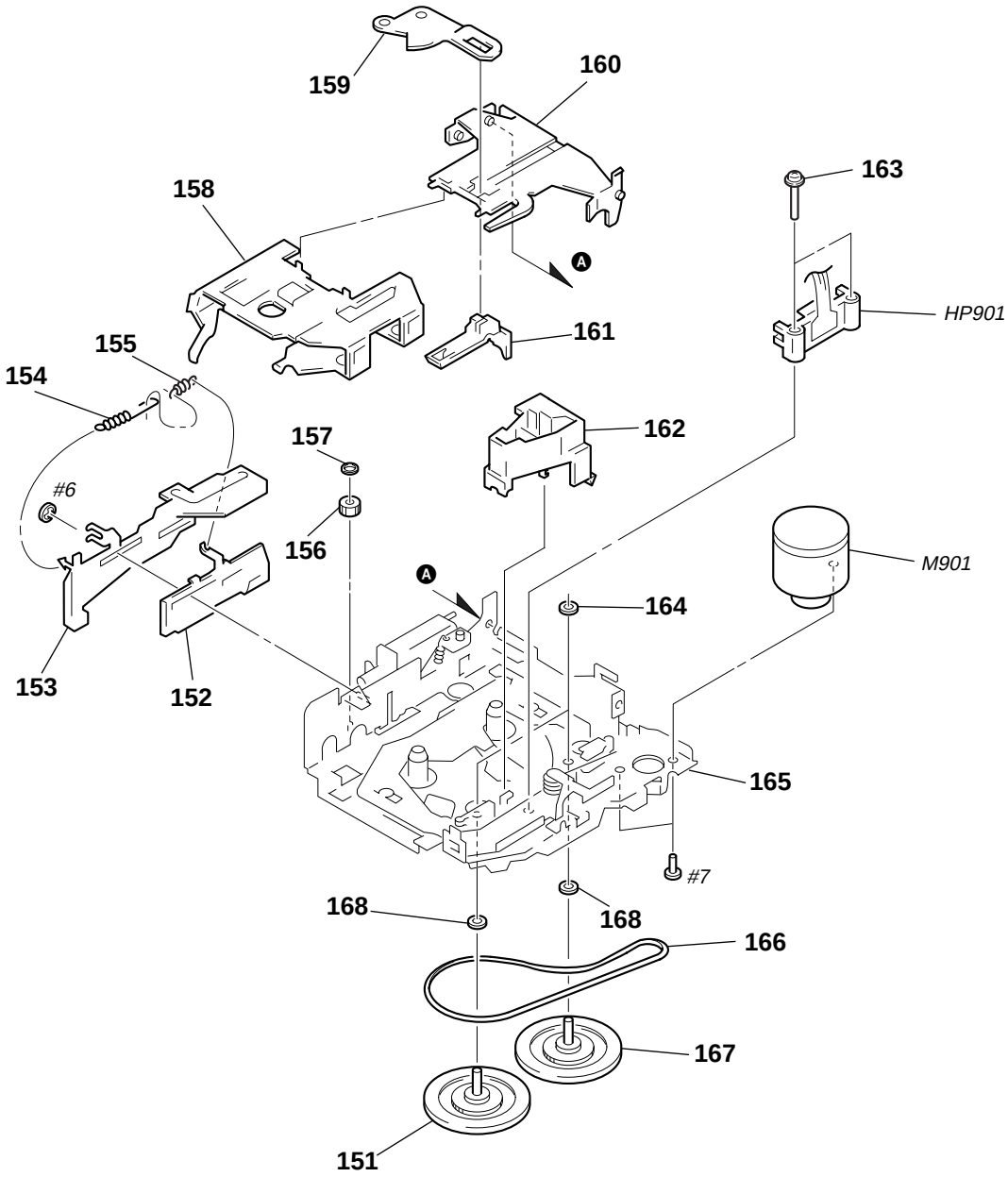
(2) FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	3-031-089-01	BUTTON (1-6) (OFF. SHIFT. 1. 2. 3. 4. 5. 6)	
52	3-031-093-01	BUTTON (OPEN) (C7220/C7300)	
52	3-031-093-11	BUTTON (OPEN) (C7300W)	
53	3-935-151-01	SPRING (OPEN)	
54	3-031-091-01	BUTTON (D-BASS) (C7220/C7300)	
54	3-031-091-11	BUTTON (D-BASS) (C7300W)	
55	X-3376-560-1	PANEL SUB ASSY (C7220)	
55	X-3376-898-1	PANEL SUB ASSY (C7300)	
55	X-3377-199-1	PANEL SUB ASSY (C7300W)	
56	3-031-064-01	BUTTON (D/F/D) (+ DISC –. LIST. DSPL)	
57	3-031-088-01	BUTTON (M/S) (MODE ◄I►. SOUND)	
58	3-031-047-01	LEVER (S/A) (+. –) (C7220/C7300)	

Ref. No.	Part No.	Description	Remark
58	3-031-047-11	LEVER (S/A) (+. -) (C7300W)	
* 59	3-031-326-01	PLATE (A), GROUND	
60	1-694-507-11	CONDUCTIVE BOARD, CONNECTION	
* 61	3-031-092-01	SHEET (REFLECTOR)	
* 62	3-034-309-01	PLATE, LIGHT GUIDE	
* 63	3-034-310-01	HOLDER (LCD)	
64	3-031-046-01	BUTTON (SOURCE)	
65	3-031-045-01	KNOB (VOL) (C7220/C7300W)	
65	3-031-045-11	KNOB (VOL) (C7300)	
66	3-031-086-01	PLATE (VOL), LIGHT GUIDE	
67	X-3376-751-1	PANEL ASSY, FRONT BACK	
LCD901	1-803-494-11	DISPLAY PANEL, LIQUID CRYSTAL	

(3) MECHANISM DECK SECTION (MG-25G-136)



Ref. No.	Part No.	Description	Remark
151	X-3375-691-1	CLUTCH (FR) ASSY	
* 152	3-019-130-01	LEVER (LDG-A)	
* 153	3-019-131-01	LEVER (LDG-B)	
154	3-020-539-01	SPRING (LD-1), TENSION	
155	3-020-540-01	SPRING (LD-2), TENSION	
156	3-020-542-01	GEAR (LOADING FT)	
157	3-341-753-11	WASHER, POLYETHYLENE	
158	3-020-533-01	HOUSING	
* 159	3-020-532-01	ARM (SUCTION)	
160	3-020-534-01	HANGER	
161	3-933-346-01	CATCHER	
162	3-933-344-01	GUIDE (C)	
163	3-014-798-01	SCREW (HEAD), SPECIAL	
164	3-364-151-01	WASHER	
165	A-3301-267-A	CHASSIS ASSY (G)	
166	3-017-302-01	BELT (25)	
167	3-936-853-01	FLYWHEEL (F)	
168	3-701-437-21	WASHER	
HP901	1-500-196-21	HEAD, MAGNETIC (PLAYBACK)	
M901	A-3291-665-A	MOTOR ASSY, MAIN (CAPSTAN/REEL)	

KEY

SECTION 8
ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . uPA. . : µPA. .
  uPB. . : µPB. . uPC. . : µPC. .
  uPD. . : µPD. .
- CAPACITORS
  uF: µF
- COILS
  uH: µH

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
		KEY BOARD			
		*********			
	1-694-507-11	CONDUCTIVE BOARD, CONNECTION			
*	3-031-092-01	SHEET (REFLECTOR)			
*	3-031-326-01	PLATE (A), GROUND			
*	3-034-309-01	PLATE, LIGHT GUIDE			
*	3-034-310-01	HOLDER (LCD)			
		< CAPACITOR >			
C951	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C952	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C953	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C954	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C955	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C956	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
		< CONNECTOR >			
CNP901	1-774-945-11	PLUG, CONNECTOR 14P			
		< DIODE >			
D901	8-719-056-93	DIODE UDZ-TE-17-18B			
D902	8-719-105-99	DIODE RD6.2M-B1			
D903	8-719-105-99	DIODE RD6.2M-B1			
D904	8-719-105-99	DIODE RD6.2M-B1			
D951	8-719-976-99	DIODE DTZ5.1B			
D952	8-719-158-15	DIODE RD5.6S-B			
D953	8-719-404-50	DIODE MA111-TX			
		< IC >			
IC901	8-759-366-34	IC LC75824E			
IC951	8-749-012-25	IC RS-170-TU			
		< LIQUID CRYSTAL DISPLAY >			
LCD901	1-803-494-11	DISPLAY PANEL, LIQUID CRYSTAL			
		< LED >			
LED901	8-719-987-45	LED CL-155Y/PG-CD (ILLUMINATION)			
LED902	8-719-987-45	LED CL-155Y/PG-CD (ILLUMINATION)			
LED903	8-719-987-45	LED CL-155Y/PG-CD (ILLUMINATION)			
LED904	8-719-987-45	LED CL-155Y/PG-CD (ILLUMINATION)			
LED905	8-719-987-45	LED CL-155Y/PG-CD (ILLUMINATION)			
LED910	8-719-074-39	LED NSPW315BSF-F04 (LCD BACK LIGHT)			
LED911	8-719-074-39	LED NSPW315BSF-F04 (LCD BACK LIGHT)			
		< SWITCH >			
LSW901	1-762-619-21	SWITCH, KEY BOARD (WITH LED) (OFF)			
LSW902	1-762-619-21	SWITCH, KEY BOARD (WITH LED) (SOURCE)			
LSW903	1-762-619-21	SWITCH, KEY BOARD (WITH LED) (MODE, ◄I►)			
LSW904	1-762-619-21	SWITCH, KEY BOARD (WITH LED) (SOUND)			
LSW906	1-762-619-21	SWITCH, KEY BOARD (WITH LED) (SHIFT)			
LSW922	1-762-619-21	SWITCH, KEY BOARD (WITH LED) (DISC/PRESET –)			
LSW923	1-762-619-21	SWITCH, KEY BOARD (WITH LED) (DISC/PRESET +)			
LSW925	1-762-619-21	SWITCH, KEY BOARD (WITH LED) (DSPL)			
LSW926	1-762-619-21	SWITCH, KEY BOARD (WITH LED) (LIST)			
LSW928	1-762-619-21	SWITCH, KEY BOARD (WITH LED) (6)			
LSW929	1-762-619-21	SWITCH, KEY BOARD (WITH LED) (5, ENTER)			
LSW930	1-762-619-21	SWITCH, KEY BOARD (WITH LED) (4, →)			
LSW931	1-762-619-21	SWITCH, KEY BOARD (WITH LED) (3, PLAY MODE)			
LSW932	1-762-619-21	SWITCH, KEY BOARD (WITH LED) (2, SET UP)			
LSW933	1-762-619-21	SWITCH, KEY BOARD (WITH LED) (1, ←)			
		< TRANSISTOR >			
Q945	8-729-900-53	TRANSISTOR DTC114EK			
		< RESISTOR >			
R901	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R902	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R903	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R904	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R905	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R906	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R907	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R916	1-216-295-00	SHORT	0		
R921	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R922	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R923	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R924	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R925	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R926	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R927	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R928	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R929	1-216-667-11	METAL CHIP	4.7K	0.5%	1/10W

Ref. No.	Part No.	Description			Remark
R930	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R931	1-208-806-11	RES,CHIP	10K	2%	1/10W
R932	1-208-810-11	RES,CHIP	15K	2%	1/10W
R951	1-216-045-00	METAL CHIP	680	5%	1/10W
R952	1-216-025-00	RES,CHIP	100	5%	1/10W
R953	1-216-121-00	RES,CHIP	1M	5%	1/10W
R954	1-216-049-11	RES,CHIP	1K	5%	1/10W
R955	1-216-049-11	RES,CHIP	1K	5%	1/10W
R956	1-216-049-11	RES,CHIP	1K	5%	1/10W
R957	1-216-109-00	METAL CHIP	330K	5%	1/10W
R958	1-216-041-00	METAL CHIP	470	5%	1/10W
R961	1-216-021-00	METAL CHIP	68	5%	1/10W
R963	1-216-021-00	METAL CHIP	68	5%	1/10W
R966	1-216-029-00	METAL CHIP	150	5%	1/10W
R967	1-216-033-00	METAL CHIP	220	5%	1/10W
R969	1-216-033-00	METAL CHIP	220	5%	1/10W
R972	1-216-033-00	METAL CHIP	220	5%	1/10W
R974	1-216-029-00	METAL CHIP	150	5%	1/10W
R975	1-216-033-00	METAL CHIP	220	5%	1/10W
R977	1-216-033-00	METAL CHIP	220	5%	1/10W
R981	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R982	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R983	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R984	1-216-081-00	METAL CHIP	22K	5%	1/10W
R998	1-216-295-00	SHORT	0		
R999	1-216-295-00	SHORT	0		
		< ROTARY ENCODER >			
RE901	1-475-014-11	ENCODER, ROTARY (JOG)			
		< SWITCH >			
S901	1-771-290-11	SWITCH, SLIDE (+ ↔ –)			
S981	1-762-937-11	SWITCH, ROTARY (D-BASS)			
**********					
*	A-3317-359-A	MAIN BOARD, COMPLETE (C7220)			
*	A-3317-360-A	MAIN BOARD, COMPLETE (C7300/C7300W)			
		**********			
*	3-018-390-01	BRACKET (IC)			
*	3-031-023-01	HEAT SINK			
*	3-031-828-01	BRACKET (REG.IC)			
	7-685-793-09	SCREW +PTT 2.6X8 (S)			
	7-685-794-09	SCREW +PTT 2.6X10 (S)			
		< CAPACITOR >			
C1	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C2	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C3	1-124-233-11	ELECT	10uF	20%	16V
C4	1-124-233-11	ELECT	10uF	20%	16V
C5	1-124-233-11	ELECT	10uF	20%	16V
C6	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C7	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C8	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C10	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C11	1-163-020-00	CERAMIC CHIP	0.0082uF	5%	50V
C12	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C13	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C14	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C15	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C16	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C17	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C18	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C19	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C20	1-124-234-00	ELECT	22uF	20%	16V
C21	1-163-091-00	CERAMIC CHIP	8PF	0.5PF	50V
C22	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C23	1-163-089-00	CERAMIC CHIP	6PF	0.5PF	50V
C24	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C25	1-124-233-11	ELECT	10uF	20%	16V
C26	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C27	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C30	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C33	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C34	1-163-133-00	CERAMIC CHIP	0.1uF	10%	25V
C35	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C36	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C64	1-124-233-11	ELECT	10uF	20%	16V
C65	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C71	1-124-234-00	ELECT	22uF	20%	16V
C72	1-124-233-11	ELECT	10uF	20%	16V
C73	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C81	1-124-589-11	ELECT	47uF	20%	16V
C82	1-124-234-00	ELECT	22uF	20%	16V
C83	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C101	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C102	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C105	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C107	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C108	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C109	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C110	1-163-007-11	CERAMIC CHIP	680PF	10%	50V
C111	1-126-163-11	ELECT	4.7uF	20%	50V
C121	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C122	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C123	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C135	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C141	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C142	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C151	1-163-986-00	CERAMIC CHIP	0.027uF	10%	25V
C152	1-124-257-00	ELECT	2.2uF	20%	50V
C153	1-124-257-00	ELECT	2.2uF	20%	50V
C171	1-126-163-11	ELECT	4.7uF	20%	50V
C172	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C173	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C174	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C181	1-126-163-11	ELECT	4.7uF	20%	50V
C182	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C183	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C184	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C201	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C202	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C205	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C207	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C208	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C209	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V

MAIN

Ref. No.	Part No.	Description			Remark
C210	1-163-007-11	CERAMIC CHIP	680PF	10%	50V
C211	1-126-163-11	ELECT	4.7uF	20%	50V
C235	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C241	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C242	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C251	1-163-986-00	CERAMIC CHIP	0.027uF	10%	25V
C252	1-124-257-00	ELECT	2.2uF	20%	50V
C253	1-124-257-00	ELECT	2.2uF	20%	50V
C271	1-126-163-11	ELECT	4.7uF	20%	50V
C272	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C273	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C274	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C281	1-126-163-11	ELECT	4.7uF	20%	50V
C282	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C283	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C284	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C301	1-124-584-00	ELECT	100uF	20%	10V
C302	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C303	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C304	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C305	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C306	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C307	1-124-257-00	ELECT	2.2uF	20%	50V
C331	1-124-234-00	ELECT	22uF	20%	16V
C361	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C362	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C363	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C364	1-124-233-11	ELECT	10uF	20%	16V
C365	1-124-234-00	ELECT	22uF	20%	16V
C366	1-104-653-11	ELECT	220uF	20%	16V
C401	1-124-584-00	ELECT	100uF	20%	10V
C402	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C403	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C404	1-124-233-11	ELECT	10uF	20%	16V
C405	1-124-234-00	ELECT	22uF	20%	16V
C407	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C409	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C502	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C504	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C506	1-163-102-00	CERAMIC CHIP	24PF	5%	50V
C507	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C509	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C510	1-124-584-00	ELECT	100uF	20%	10V
C527	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C529	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C551	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C552	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C571	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C601	1-107-885-31	ELECT	3300uF	20%	16V
C602	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C603	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C611	1-126-157-11	ELECT	10uF	20%	16V
C612	1-126-157-11	ELECT	10uF	20%	16V
C613	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C614	1-124-589-11	ELECT	47uF	20%	16V
C616	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C617	1-164-506-11	CERAMIC CHIP	4.7uF		16V
C621	1-124-589-11	ELECT	47uF	20%	16V
C622	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C623	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C631	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C632	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C641	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C651	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C652	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C653	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C654	1-125-710-11	DOUBLE LAYER	0.1F		5.5V
C655	1-128-526-11	ELECT	100uF	20%	10V
C661	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C671	1-126-157-11	ELECT	10uF	20%	16V
C672	1-124-233-11	ELECT	10uF	20%	16V
C673	1-124-233-11	ELECT	10uF	20%	16V
C674	1-124-233-11	ELECT	10uF	20%	16V
C675	1-124-233-11	ELECT	10uF	20%	16V
C676	1-124-233-11	ELECT	10uF	20%	16V
C701	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C702	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C703	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C704	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V

< CONNECTOR/JACK >

Ref. No.	Part No.	Description
CN301	1-766-260-11	CONNECTOR, FFC/FPC (ZIF) 7P
* CN302	1-506-995-11	PIN, CONNECTOR (PC BOARD) 13P
CN500	1-770-409-11	CONNECTOR, BOARD TO BOARD 16P
CN601	1-774-701-11	PIN, CONNECTOR 16P
CN701	1-580-907-31	PLUG, CONNECTOR (BUS CONTROL IN)
CNJ151	1-774-700-11	JACK, PIN 6P (BUS AUDIO IN, AUDIO OUT FRONT/REAR)

< DIODE >

Ref. No.	Part No.	Description
D1	8-719-991-65	DIODE SB02W03C
D51	8-719-422-12	DIODE MA8039
D71	8-719-158-15	DIODE RD5.6S-B
D81	8-719-977-28	DIODE DTZ10B
D141	8-719-056-93	DIODE UDZ-TE-17-18B
D171	8-719-056-93	DIODE UDZ-TE-17-18B
D172	8-719-056-93	DIODE UDZ-TE-17-18B
D361	8-719-977-22	DIODE DTZ9.1
D362	8-719-404-50	DIODE MA111-TX
D501	8-719-914-44	DIODE DAP202K
D551	8-719-105-99	DIODE RD6.2M-B1
D552	8-719-105-99	DIODE RD6.2M-B1
D553	8-719-105-99	DIODE RD6.2M-B1
D555	8-719-056-93	DIODE UDZ-TE-17-18B
D556	8-719-105-99	DIODE RD6.2M-B1
D557	8-719-105-99	DIODE RD6.2M-B1
D558	8-719-105-99	DIODE RD6.2M-B1
D559	8-719-105-99	DIODE RD6.2M-B1
D560	8-719-105-99	DIODE RD6.2M-B1
D561	8-719-105-99	DIODE RD6.2M-B1
D562	8-719-105-99	DIODE RD6.2M-B1
D567	8-719-056-93	DIODE UDZ-TE-17-18B
D568	8-719-105-99	DIODE RD6.2M-B1
D569	8-719-105-99	DIODE RD6.2M-B1
D571	8-719-404-50	DIODE MA111-TX
D601	8-719-049-38	DIODE 1N5404TU

Ref. No.	Part No.	Description	Remark
D602	8-719-056-93	DIODE UDZ-TE-17-18B	
D603	8-719-056-93	DIODE UDZ-TE-17-18B	
D604	8-719-105-99	DIODE RD6.2M-B1	
D605	8-719-105-99	DIODE RD6.2M-B1	
D611	8-719-053-18	DIODE 1SR154-400TE-25	
D612	8-719-053-18	DIODE 1SR154-400TE-25	
D613	8-719-053-18	DIODE 1SR154-400TE-25	
D614	8-719-053-18	DIODE 1SR154-400TE-25	
D615	8-719-053-18	DIODE 1SR154-400TE-25	
D616	8-719-053-18	DIODE 1SR154-400TE-25	
D617	8-719-053-18	DIODE 1SR154-400TE-25	
D618	8-719-053-18	DIODE 1SR154-400TE-25	
D621	8-719-422-12	DIODE MA8039	
D622	8-719-404-50	DIODE MA111-TX	
D623	8-719-977-22	DIODE DTZ9.1	
D624	8-719-404-50	DIODE MA111-TX	
D625	8-719-404-50	DIODE MA111-TX	
D626	8-719-404-50	DIODE MA111-TX	
D631	8-719-977-28	DIODE DTZ10B	
D651	8-719-970-02	DIODE 1SR139-400	
D653	8-719-404-50	DIODE MA111-TX	
D661	8-719-404-50	DIODE MA111-TX	
D662	8-719-056-84	DIODE UDZ-TE-17-7.5B	
D671	8-719-053-18	DIODE 1SR154-400TE-25	
D672	8-719-053-18	DIODE 1SR154-400TE-25	
D673	8-719-053-18	DIODE 1SR154-400TE-25	
D674	8-719-053-18	DIODE 1SR154-400TE-25	
D701	8-719-978-69	DIODE DTZ-TT11-16B	
D702	8-719-105-99	DIODE RD6.2M-B1	
D703	8-719-105-99	DIODE RD6.2M-B1	
D704	8-719-056-93	DIODE UDZ-TE-17-18B	
D705	8-719-056-93	DIODE UDZ-TE-17-18B	
D706	8-719-072-70	DIODE MA2ZD14001S0	
D707	8-719-404-50	DIODE MA111-TX	
D708	8-719-056-93	DIODE UDZ-TE-17-18B	
		< COIL >	
FB501	1-414-233-22	INDUCTOR CHIP 0uH	
		< IC >	
IC1	8-759-573-79	IC TB2118F (EL)	
IC301	8-752-079-79	IC CXA2510AQ-T4	
IC361	8-759-823-87	IC LB1638M	
IC401	8-759-572-10	IC TDA7462D	
IC501	8-759-579-14	IC MB90574PFV-G-180-BND (C7220)	
IC501	8-759-579-17	IC MB90574PFV-G-181-BND (C7300/C7300W)	
IC611	8-759-490-74	IC TDA7384	
IC651	8-759-574-59	IC XC61BN3312MR	
IC652	8-759-574-61	IC XC61AN4302MR	
IC671	8-759-347-50	IC BA3918-V3	
IC701	8-759-449-89	IC BA8270F-E2	
		< JACK >	
J1	1-764-808-21	JACK (ANT) (FM/AM ANTENNA)	
J501	1-566-822-41	JACK (REMOTE IN)	

Ref. No.	Part No.	Description	Remark
		< SHORT >	
JC1	1-216-295-00	SHORT 0 (C7220)	
JC2	1-216-295-00	SHORT 0	
JC3	1-216-295-00	SHORT 0	
JC181	1-216-295-00	SHORT 0	
JC621	1-216-295-00	SHORT 0	
JC622	1-216-295-00	SHORT 0	
JC623	1-216-295-00	SHORT 0	
JC651	1-216-295-00	SHORT 0	
JC672	1-216-295-00	SHORT 0	
		< COIL >	
L1	1-410-989-11	INDUCTOR CHIP 0.47uH	
L601	1-411-669-12	COIL, CHOKE	
		< TRANSISTOR >	
Q52	8-729-921-25	TRANSISTOR FMC2	
Q71	8-729-015-11	TRANSISTOR 2SD1802FAST-TL	
Q81	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q82	8-729-921-25	TRANSISTOR FMC2	
Q121	8-729-920-21	TRANSISTOR DTC314TKH04	
Q151	8-729-920-21	TRANSISTOR DTC314TKH04	
Q171	8-729-920-21	TRANSISTOR DTC314TKH04	
Q181	8-729-920-21	TRANSISTOR DTC314TKH04	
Q251	8-729-920-21	TRANSISTOR DTC314TKH04	
Q271	8-729-920-21	TRANSISTOR DTC314TKH04	
Q281	8-729-920-21	TRANSISTOR DTC314TKH04	
Q361	8-729-015-11	TRANSISTOR 2SD1802FAST-TL	
Q362	8-729-921-25	TRANSISTOR FMC2	
Q364	8-729-106-60	TRANSISTOR 2SB1115A	
Q365	8-729-900-53	TRANSISTOR DTC114EK	
Q551	8-729-921-25	TRANSISTOR FMC2	
Q571	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q621	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q622	8-729-021-94	FET 2SK1657-T1B	
Q631	8-729-423-99	TRANSISTOR 2SD2137-OP	
Q632	8-729-423-99	TRANSISTOR 2SD2137-OP	
Q633	8-729-921-25	TRANSISTOR FMC2	
Q651	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q652	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q661	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q701	8-729-900-53	TRANSISTOR DTC114EK	
Q702	8-729-027-23	TRANSISTOR DTA114EKA-T146	
		< RESISTOR >	
R1	1-216-049-11	RES,CHIP 1K 5% 1/10W	
R2	1-216-025-00	RES,CHIP 100 5% 1/10W	
R3	1-216-097-00	RES,CHIP 100K 5% 1/10W	
R6	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R7	1-216-073-00	METAL CHIP 10K 5% 1/10W	(C7220)
R8	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R10	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	(C7220)
R11	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R12	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
R13	1-216-025-00	RES,CHIP 100 5% 1/10W	

MAIN

Ref. No.	Part No.	Description			Remark
R14	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R15	1-216-049-11	RES,CHIP	1K	5%	1/10W
R16	1-216-073-00	METAL CHIP	10K	5%	1/10W
R17	1-216-295-00	SHORT	0		
R18	1-216-049-11	RES,CHIP	1K	5%	1/10W (C7220)
R61	1-216-037-00	METAL CHIP	330	5%	1/10W
R62	1-216-045-00	METAL CHIP	680	5%	1/10W
R63	1-216-097-00	RES,CHIP	100K	5%	1/10W
R64	1-216-097-00	RES,CHIP	100K	5%	1/10W
R71	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R81	1-216-049-11	METAL CHIP	1K	5%	1/10W
R95	1-216-121-00	RES,CHIP	1M	5%	1/10W
R96	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R101	1-216-097-00	RES,CHIP	100K	5%	1/10W
R102	1-216-097-00	RES,CHIP	100K	5%	1/10W
R105	1-216-109-00	METAL CHIP	330K	5%	1/10W
R106	1-216-077-00	METAL CHIP	15K	5%	1/10W
R107	1-216-079-00	METAL CHIP	18K	5%	1/10W
R108	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R109	1-216-077-00	METAL CHIP	15K	5%	1/10W
R121	1-216-073-00	METAL CHIP	10K	5%	1/10W
R141	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R142	1-216-073-00	METAL CHIP	10K	5%	1/10W
R151	1-216-077-00	METAL CHIP	15K	5%	1/10W
R152	1-216-085-00	METAL CHIP	33K	5%	1/10W
R153	1-216-097-00	RES,CHIP	100K	5%	1/10W
R171	1-216-033-00	METAL CHIP	220	5%	1/10W
R172	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R173	1-216-089-00	RES,CHIP	47K	5%	1/10W
R174	1-216-121-00	RES,CHIP	1M	5%	1/10W
R181	1-216-033-00	METAL CHIP	220	5%	1/10W
R182	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R183	1-216-089-00	RES,CHIP	47K	5%	1/10W
R184	1-216-121-00	RES,CHIP	1M	5%	1/10W
R201	1-216-097-00	RES,CHIP	100K	5%	1/10W
R202	1-216-097-00	RES,CHIP	100K	5%	1/10W
R205	1-216-109-00	METAL CHIP	330K	5%	1/10W
R206	1-216-077-00	METAL CHIP	15K	5%	1/10W
R207	1-216-079-00	METAL CHIP	18K	5%	1/10W
R208	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R209	1-216-077-00	METAL CHIP	15K	5%	1/10W
R241	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R242	1-216-073-00	METAL CHIP	10K	5%	1/10W
R251	1-216-077-00	METAL CHIP	15K	5%	1/10W
R252	1-216-085-00	METAL CHIP	33K	5%	1/10W
R253	1-216-097-00	RES,CHIP	100K	5%	1/10W
R271	1-216-033-00	METAL CHIP	220	5%	1/10W
R272	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R273	1-216-089-00	RES,CHIP	47K	5%	1/10W
R274	1-216-121-00	RES,CHIP	1M	5%	1/10W
R281	1-216-033-00	METAL CHIP	220	5%	1/10W
R282	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R283	1-216-089-00	RES,CHIP	47K	5%	1/10W
R284	1-216-121-00	RES,CHIP	1M	5%	1/10W
R301	1-208-812-11	RES,CHIP	18K	2%	1/10W
R302	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R303	1-216-077-00	METAL CHIP	15K	5%	1/10W
R304	1-216-105-00	RES,CHIP	220K	5%	1/10W
R305	1-216-001-00	METAL CHIP	10	5%	1/10W
R306	1-216-073-00	METAL CHIP	10K	5%	1/10W
R307	1-216-073-00	METAL CHIP	10K	5%	1/10W
R361	1-216-049-11	RES,CHIP	1K	5%	1/10W
R362	1-249-389-11	CARBON	4.7	5%	1/4W
R363	1-249-389-11	CARBON	4.7	5%	1/4W
R364	1-216-073-00	METAL CHIP	10K	5%	1/10W
R365	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R501	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R502	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R503	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R508	1-216-073-00	METAL CHIP	10K	5%	1/10W
R510	1-216-097-00	RES,CHIP	100K	5%	1/10W
R511	1-216-097-00	RES,CHIP	100K	5%	1/10W
R512	1-216-097-00	RES,CHIP	100K	5%	1/10W
R513	1-216-097-00	RES,CHIP	100K	5%	1/10W
R514	1-216-097-00	RES,CHIP	100K	5%	1/10W
R515	1-216-097-00	RES,CHIP	100K	5%	1/10W
R516	1-216-097-00	RES,CHIP	100K	5%	1/10W
R520	1-216-097-00	RES,CHIP	100K	5%	1/10W
R522	1-216-097-00	RES,CHIP	100K	5%	1/10W
R523	1-216-097-00	RES,CHIP	100K	5%	1/10W
R526	1-216-097-00	RES,CHIP	100K	5%	1/10W
R527	1-208-806-11	RES,CHIP	10K	0.5%	1/10W
R528	1-216-295-00	SHORT	0		
R529	1-216-073-00	METAL CHIP	10K	5%	1/10W
R530	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R531	1-216-085-00	METAL CHIP	33K	5%	1/10W
R532	1-216-073-00	METAL CHIP	10K	5%	1/10W
R533	1-216-073-00	METAL CHIP	10K	5%	1/10W
R534	1-216-097-00	RES,CHIP	100K	5%	1/10W
R535	1-216-097-00	RES,CHIP	100K	5%	1/10W
R536	1-216-097-00	RES,CHIP	100K	5%	1/10W
R538	1-216-097-00	RES,CHIP	100K	5%	1/10W
R540	1-216-097-00	RES,CHIP	100K	5%	1/10W
R542	1-216-097-00	RES,CHIP	100K	5%	1/10W
R545	1-216-097-00	RES,CHIP	100K	5%	1/10W
R546	1-216-089-00	RES,CHIP	47K	5%	1/10W
R551	1-208-806-11	RES,CHIP	10K	0.5%	1/10W
R552	1-208-806-11	RES,CHIP	10K	0.5%	1/10W
R553	1-216-025-00	RES,CHIP	100	5%	1/10W
R554	1-216-025-00	RES,CHIP	100	5%	1/10W
R555	1-216-097-00	RES,CHIP	100K	5%	1/10W
R556	1-216-097-00	RES,CHIP	100K	5%	1/10W
R557	1-249-413-11	CARBON	470	5%	1/4W
R558	1-216-025-00	RES,CHIP	100	5%	1/10W
R559	1-216-025-00	RES,CHIP	100	5%	1/10W
R560	1-216-025-00	RES,CHIP	100	5%	1/10W
R561	1-216-025-00	RES,CHIP	100	5%	1/10W
R562	1-216-025-00	RES,CHIP	100	5%	1/10W
R563	1-216-025-00	RES,CHIP	100	5%	1/10W
R564	1-216-025-00	RES,CHIP	100	5%	1/10W
R565	1-216-025-00	RES,CHIP	100	5%	1/10W
R566	1-216-025-00	RES,CHIP	100	5%	1/10W
R611	1-216-049-11	RES,CHIP	1K	5%	1/10W
R612	1-216-049-11	RES,CHIP	1K	5%	1/10W
R621	1-216-017-00	RES,CHIP	47	5%	1/10W

Ref. No.	Part No.	Description			Remark
R622	1-216-295-00	RES,CHIP	0	5%	1/10W
R623	1-216-073-00	METAL CHIP	10K	5%	1/10W
R624	1-216-049-11	RES,CHIP	1K	5%	1/10W
R625	1-216-049-11	RES,CHIP	1K	5%	1/10W
R631	1-249-389-11	CARBON	4.7	5%	1/4W
R632	1-249-389-11	CARBON	4.7	5%	1/4W
R636	1-216-037-00	METAL CHIP	330	5%	1/10W
R641	1-216-097-00	RES,CHIP	100K	5%	1/10W
R642	1-216-113-00	METAL CHIP	470K	5%	1/10W
R651	1-216-113-00	METAL CHIP	470K	5%	1/10W
R652	1-216-097-00	RES,CHIP	100K	5%	1/10W
R653	1-208-806-11	RES,CHIP	10K	0.5%	1/10W
R654	1-216-073-00	METAL CHIP	10K	5%	1/10W
R655	1-216-025-00	RES,CHIP	100	5%	1/10W
R656	1-216-025-00	RES,CHIP	100	5%	1/10W
R661	1-249-421-11	CARBON	2.2K	5%	1/4W
R662	1-216-081-00	METAL CHIP	22K	5%	1/10W
R663	1-216-089-00	RES,CHIP	47K	5%	1/10W
R664	1-216-089-00	RES,CHIP	47K	5%	1/10W
R683	1-216-089-00	RES,CHIP	47K	5%	1/10W
R701	1-216-017-00	RES,CHIP	47	5%	1/10W
R702	1-216-073-00	METAL CHIP	10K	5%	1/10W
R703	1-216-025-00	RES,CHIP	100	5%	1/10W
R704	1-216-025-00	RES,CHIP	100	5%	1/10W
R705	1-216-089-00	RES,CHIP	47K	5%	1/10W
R706	1-216-097-00	RES,CHIP	100K	5%	1/10W
R707	1-216-097-00	RES,CHIP	100K	5%	1/10W
		< CONPOSITION CIRCUIT BLOCK >			
RB501	1-233-413-11	RES, CHIP NETWORK 2.2K (3216)			
RB502	1-233-413-11	RES, CHIP NETWORK 2.2K (3216)			
		< VARIABLE RESISTOR >			
RV101	1-223-829-11	RES, ADJ, CARBON 1.0K			
RV201	1-223-829-11	RES, ADJ, CARBON 1.0K			
		< SWITCH >			
S501	1-571-478-11	SWITCH, SLIDE (POWER SELECT)			
S502	1-571-478-11	SWITCH, SLIDE (FREQUENCY SELECT) (C7300/C7300W)			
S503	1-692-431-21	SWITCH, TACTILE (RESET)			
S504	1-771-540-11	SWITCH, PUSH (1 KEY) (NOSE DETECT)			
		< THERMISTOR (POSITIVE) >			
THP701	1-801-792-21	THERMISTOR, POSITIVE			
		< TUNER UNIT >			
TU1	A-3220-689-A	FM/AM TUNER UNIT TUX-010/2 (E) (C7220)			
TU1	A-3220-695-A	FM/AM TUNER UNIT TUX-011 (EA) (C7300/C7300W)			
		< VIBRATOR >			
X1	1-781-246-21	VIBRATOR, CRYSTAL (10.25MHz)			
X501	1-767-833-21	VIBRATOR, CERAMIC (3.68MHz)			
X502	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)			

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Ref. No.	Part No.	Description	Remark
*	1-673-172-11	SUB BOARD	
		**********	
		< CONNECTOR >	
CNP801	1-774-944-11	SOCKET, CONNECTOR 14P	
CNP802	1-774-276-21	SOCKET, CONNECTOR 16P	
		< LED >	
LED801	8-719-038-07	LED CL-190PG-CD-T (TAPE WINDOW)	
		< SWITCH >	
LSW801	1-771-609-11	SWITCH, TACTILE (WITH LED) (⏏)	

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		MISCELLANEOUS	
		**********	
14	1-776-207-72	CORD (WITH CONNECTOR) (POWER)	
F801	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) (10A)	
HP901	1-500-196-21	HEAD, MAGNETIC (PLAYBACK)	
M901	A-3291-665-A	MOTOR ASSY, MAIN (CAPSTAN/REEL)	

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		HARDWARE LIST	
		**********	
#1	7-621-772-18	SCREW +B 2X4	
#2	7-621-772-20	SCREW +B 2X5	
#3	7-685-793-09	SCREW +PTT 2.6X8 (S)	
#4	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#5	7-685-794-09	SCREW +PTT 2.6X10 (S)	
#6	7-624-104-04	STOP RING 2.0, TYPE-E	
#7	7-627-553-17	PRECISION SCREW +P 2X2 TYPE 3	
#8	7-685-106-19	SCREW +P 2X10 TYPE2 NON-SLIT	

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		ACCESSORIES & PACKING MATERIALS	
		**********	
	1-473-067-71	WIRED REMOTE COMMANDER (RM-X4S) (C7300)	
	1-473-067-81	WIRED REMOTE COMMANDER (RM-X4S) (C7300W)	
	3-012-070-01	LABEL (SOUND) (2) (for RM-X4S) (C7300/C7300W)	
	3-865-683-11	MANUAL, INSTRUCTION (ENGLISH) (C7220)	
	3-865-683-21	MANUAL, INSTRUCTION (FRENCH) (C7220: Canadian)	
	3-865-683-41	MANUAL, INSTRUCTION (ENGLISH, SPANISH, CHINESE) (C7300/C7300W)	
	3-865-684-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, FRENCH) (C7220)	
	3-865-684-31	MANUAL, INSTRUCTION, INSTALL (ENGLISH, SPANISH, CHINESE) (C7300/C7300W)	
	X-3373-412-1	CASE (PANEL) ASSY (for FRONT PANEL)	

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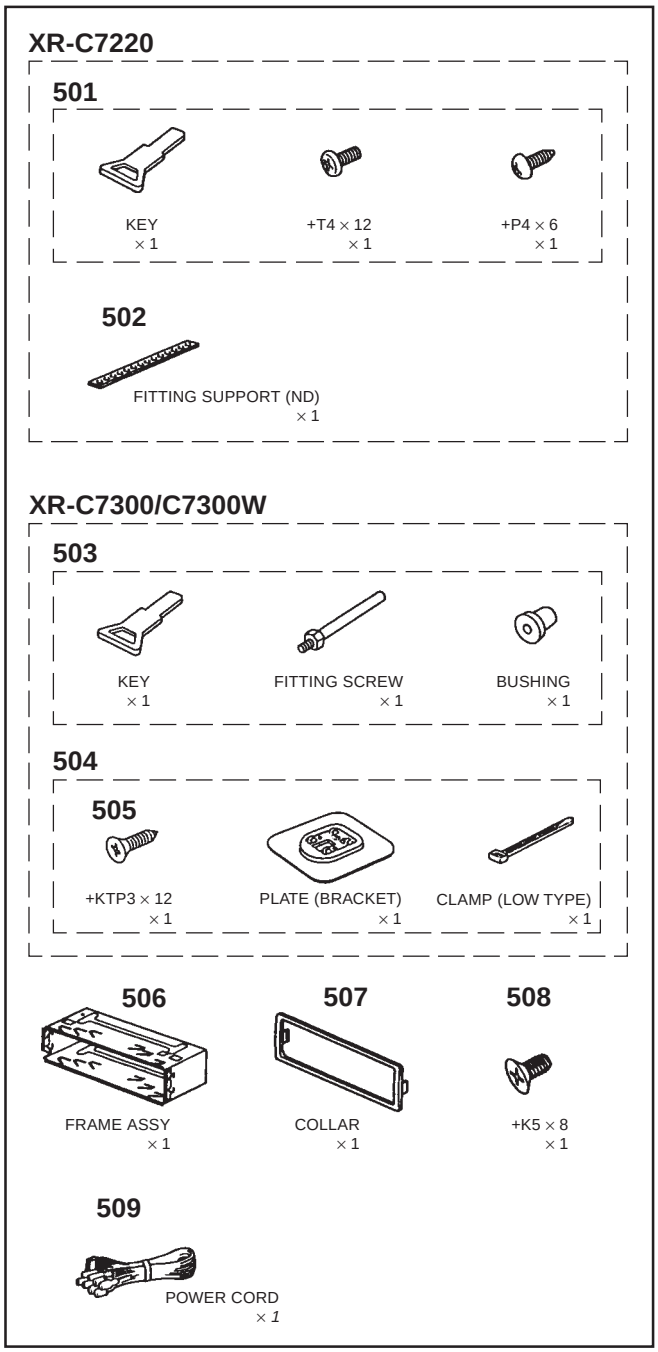
Ref. No.	Part No.	Description	Remark
		PARTS FOR INSTALLATION AND CONNECTIONS	
		**********	
501	X-3370-076-1	SCREW ASSY (KEY), FITTING (C7220)	
502	3-924-961-01	SUPPORT (ND), FITTING (C7220)	
503	X-3370-077-1	SCREW ASSY (AE. KEY), FITTING	(C7300/C7300W)
504	X-3373-432-1	BRACKET ASSY (for RM-X4S)	(C7300/C7300W)
505	7-685-248-14	SCREW +KTP 3X12 TYPE4 (C7300/C7300W)	
506	3-916-161-31	FRAME ASSY	
507	3-031-048-01	COLLAR (C7220/C7300)	
507	3-031-048-11	COLLAR (C7300W)	
508	3-934-325-01	SCREW, +K (5X8) TAPPING	
509	1-776-207-72	CORD (WITH CONNECTOR) (POWER)